

DUKE  
UNIVERSITY



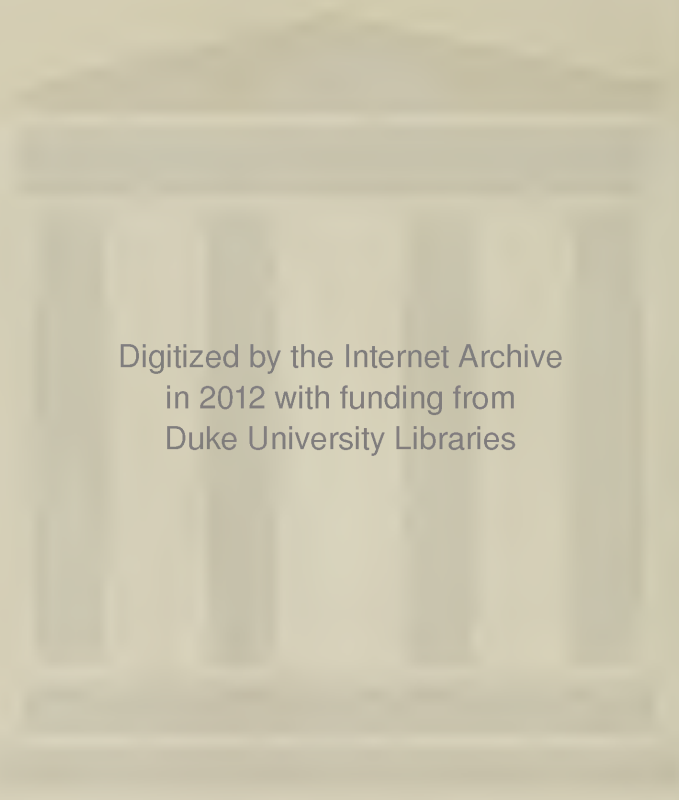
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# BULLETIN OF DUKE UNIVERSITY



## The School of Medicine

ANNOUNCEMENTS FOR 1953-1954

VOLUME 25

November, 1952

NUMBER 2

# Annual Bulletins

For GENERAL BULLETIN of Duke University, apply to *The Secretary*, Duke University, Durham, N. C.

For BULLETIN OF UNDERGRADUATE INSTRUCTION, apply to *The Secretary*, Duke University, Durham, N. C.

For BULLETIN OF THE COLLEGE OF ENGINEERING, apply to *The Secretary*, Duke University, Durham, N. C.

For BULLETIN OF THE GRADUATE SCHOOL OF ARTS AND SCIENCES, apply to *The Dean of the Graduate School*, Duke University, Durham, N. C.

For BULLETIN OF THE SCHOOL OF FORESTRY, apply to *The Dean of the School of Forestry*, Duke University, Durham, N. C.

For BULLETIN OF THE SCHOOL OF LAW, apply to *The Dean of the School of Law*, Duke University, Durham, N. C.

For BULLETIN OF THE SCHOOL OF MEDICINE, apply to *The Dean of the School of Medicine*, Duke University, Durham, N. C.

For BULLETIN OF THE SCHOOL OF NURSING, apply to *The Dean of the School of Nursing*, Duke University, Durham, N. C.

For BULLETIN OF THE DIVINITY SCHOOL, apply to *The Dean of the Divinity School*, Duke University, Durham, N. C.

For BULLETIN OF THE SUMMER SESSION, apply to *The Director of the Summer Session*, Duke University, Durham, N. C.

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BULLETIN  
OF  
DUKE UNIVERSITY  
THE SCHOOL OF MEDICINE



1953

ANNOUNCEMENTS FOR 1953-1954

DURHAM, NORTH CAROLINA

1952



# Officers of Administration



ARTHUR HOLLIS EDENS, B.Ph., A.M., M.P.A., Ph.D., LL.D. <i>President of the University</i>	West Campus
WILLIAM HANE WANNAMAKER, A.B., A.M., Litt.D. <i>Vice-Chancellor of the University</i>	West Campus
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CHARLES EDWARD JORDAN, A.B., LL.D. <i>Vice-President in the Division of Public Relations and Secretary of the University</i>	813 Vickers Avenue
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ALFRED SMITH BROWER, A.B. <i>Business Manager and Comptroller</i>	614 West Campus
CHARLES BLACKWELL MARKHAM, A.B., A.M. <i>Treasurer of the University</i>	204 Dillard Street

## *Committee on Health Affairs*

- W. C. DAVISON, *Professor of Pediatrics, and Dean of the School of Medicine.*  
 FLORENCE K. WILSON, *Professor of Nursing Education, and Dean of the School of Nursing.*  
 ROSS PORTER,\* *Professor of Hospital Administration, and Superintendent of Duke Hospital.*  
 J. MINETREE PYNE, *Associate in Hospital Administration.*  
 LOUIS E. SWANSON, *Associate in Hospital Administration.*  
 LELIA R. CLARK, *Professor of Nursing Service.*  
 DOROTHY JOHNSTON, *Assistant in Charge of Nursing Education.*  
 BAYARD CARTER, *Professor of Obstetrics and Gynecology.*  
 W. D. FORBUS, *Professor of Pathology.*  
 F. G. HALL, *Professor of Physiology.*  
 PHILIP HANDLER, *Professor of Biochemistry.*  
 DERYL HART, *Professor of Surgery.*  
 L. B. HOHMAN, *Professor of Psychiatry.*  
 HANS LOWENBACH, *Associate Professor of Psychiatry.*  
 J. E. MARKEE, *Professor of Anatomy.*  
 K. E. PENROD, *Associate Professor of Physiology and Pharmacology and Assistant Dean.*  
 R. J. REEVES, *Professor of Radiology.*  
 D. T. SMITH, *Professor of Bacteriology.*  
 E. A. STEAD, JR., *Professor of Medicine.*  
 Four other members of the faculty holding the rank of Assistant Professor or above,  
 by alphabetical rotation.

\* On leave of absence.

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## Foreword



This bulletin is issued for prospective medical students. Admission into any class is made only on the understanding that every decision of the Committee on Health Affairs shall apply to all students, even though it is made subsequently to their enrollment in the School. At frequent intervals the Committee on Health Affairs reviews the records of all students, and those whose progress has been unsatisfactory may be required to leave the School. Only those will be advanced who, in the opinion of the Committee on Health Affairs, give promise of being a credit to themselves and to the School. The next first-year class will be admitted October 5, 1953. For admission requirements and applications, see page 12.

# 1953

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# 1954

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# School of Medicine Calendar

## 1953-1954



### 1953

Jan.	5	Monday—Registration of students, and Winter Quarter begins.
Feb.	7	Saturday—First half of the year for first-year students ends.
Feb.	9	Monday—Second half of the year for first-year students begins.*
March	21	Saturday—Winter Quarter ends.
March	30	Monday—Registration of students, and Spring Quarter begins.
April	5	Sunday—Vacation for first-year students begins.
April	6	Monday—Easter Monday: a holiday.
April	12	Sunday—Vacation for first-year students ends.
June	1	Monday—Commencement Exercises.
June	13	Saturday—Spring Quarter ends.
July	4	Saturday—Independence Day: a holiday.
July	6	Monday—Registration of students, and Summer Quarter begins.
Sept.	7	Monday—Labor Day: a holiday.
Sept.	19	Saturday—Summer Quarter ends.
Oct.	5	Monday—Registration of students, and Autumn Quarter begins.
Nov.	26	Thursday—Thanksgiving: a holiday.
Dec.	19	Saturday—Autumn Quarter ends.

### 1954

Jan.	4	Monday—Registration of students, and Winter Quarter begins.
Feb.	6	Saturday—First half of the year for first-year students ends.
Feb	8	Monday—Second half of the year for first-year students begins.*
March	20	Saturday—Winter Quarter ends.
March	29	Monday—Registration of students, and Spring Quarter begins.
June	7	Monday—Commencement Exercises.
June	12	Saturday—Spring Quarter ends.
July	4	Sunday—Independence Day.
July	5	Monday—a holiday.
July	6	Tuesday—Registration of students, and Summer Quarter begins.
Sept.	6	Monday—Labor Day: a holiday.
Sept.	18	Saturday—Summer Quarter ends.
Oct.	4	Monday—Registration of students, and Autumn Quarter begins.
Nov.	25	Thursday—Thanksgiving: a holiday.
Dec.	18	Saturday—Autumn Quarter ends.

\* First-year students will have one week's vacation during the second half of the year. Dates will be announced later.

# General Statement



DUKE UNIVERSITY School of Medicine and Duke Hospital were established in 1930, through the munificent gift of the late James B. Duke. The School of Medicine has been planned to insure the greatest correlation between the various departments. These facilities are available also for students who are studying for degrees other than that of Doctor of Medicine. The School of Medicine has been approved as Class A by the American Medical Association and is also a member of the Association of the American Medical Colleges. On September 29, 1952, three hundred and fifteen students were enrolled.

## *Aims of the School*

Duke University School of Medicine, from its beginning in 1930, has maintained as its major objectives: (a) the cultivation and teaching of medicine on a strictly scientific basis; (b) the correlation of medical research with medical teaching at all levels of its teaching, and (c) the continuous search for and experimentation with new or improved methods of teaching scientific medicine. In order to attain these objectives, the School has been organized, its physical plant planned, and its administrative structure constituted so that there exists the closest possible academic and physical relationship between undergraduate and graduate work in the University and the School of Medicine, and also between the basic medical sciences and the clinical sciences within the School and its integrated teaching Hospital. The professional staff of the School is composed of two general categories, those with permanent appointment and unlimited tenure, and those with temporary appointment. The latter, the much larger group, is maintained on a highly fluid basis, which makes possible a high degree of selectivity in appointment for academic training and scientific research. The smaller group of permanent appointees has in every individual a background characterized by academic and scientific attainment. The professional, academic, and scientific environment created by the staff is thus such as to engender scientific inquiry and to encourage diligent pursuit of the medical sciences in all their relationships. The staff at all levels devotes its entire professional time to the activities of the School or Hospital.

## *Facilities of the Hospital*

Duke Hospital, an integral part of Duke University School of Medicine, has every modern convenience for the diagnosis, proper care, welfare and comfort of the patients, both ward and private, white and colored, whether they come from Durham or from a distance. It has 591 beds, including 30 bassinets for newborn infants, and 20 premature nursery bassinets. *Medicine*, including dermatology and neurology, has 77 ward beds; *surgery*, including urology, otolaryngology, ophthalmology, and orthopaedics, 135 ward beds; *obstetrics*, including *gynecology*, 59, and 50 bassinets; *neuropsychiatry*, 9; and *pediatrics*, 40. There are 209 private rooms and semiprivate cubicles, 12 air-conditioned operating rooms, 4 obstetric delivery rooms, and ward and student laboratories. Offices and examining rooms for members of the Medical Faculty are located in the Hospital. The Hospital has been approved for internships and residencies by the Council on Medical Education and Hospitals of the American Medical Association, and the American College of Surgeons.

Duke Hospital and its Out-Patient Clinic were opened for patients on July 21, 1930. Through December 31, 1951, 429,700 individuals have been examined, diagnosed, and treated. The average daily census of hospital patients during the past year was 466; 106,820 visits were made to the Out-Patient Clinic during the same period. Twenty-one per cent of the patients come from within a radius of twenty miles, the remaining 79 per cent come from the other 99 counties in North Carolina and from 36 other states and 3 foreign countries. The average distance traveled by the patients is more than seventy miles.

The Private Diagnostic Clinic was organized to co-ordinate the diagnostic studies, and to give better care to the complicated problems arising in the examination of private patients. The Clinical Staff of Duke Hospital and School of Medicine forms the professional staff of this clinic, while the financial side is handled by a business manager. The offices and examining rooms are in Duke Hospital, and all of the laboratory and diagnostic facilities of the Hospital and School of Medicine are utilized by the Clinic.

## *Library*

JUDITH FARRAR, A.B., B.S., *Librarian and Assistant Professor of Medical Literature.*

MILDRED PERKINS FARRAR, A.B., *Assistant Librarian.*

*"To study the phenomena of disease without books is to sail an uncharted sea, while to study books without patients is not to go to sea at all."*—SIR WILLIAM OSLER.

In addition to the General Library of Duke University and the departmental libraries of biology, chemistry, physics, etc., which have 1,032,508 volumes available for medical students, Duke Hospital



Library contains 54,000 volumes of American and foreign medical literature and subscribes to 585 current American and foreign medical and other scientific journals. These books and journals are available daily from 8:30 A.M. to 10:30 P.M. for the students, nurses, staff, and medical profession.

## *Medical Care*

ELBERT L. PERSONS, A.B., M.D., *Physician in Charge and Associate Professor of Medicine.*

With exceptions noted below, full medical and surgical care is furnished to all regularly matriculated medical students of the University who have paid the quarterly General Fee. This service is under the direction of the Physician in Charge with the co-operation of the Staff of Duke Hospital. It includes hospitalization (limited to thirty days), medical and surgical care, drugs, dressings, x-ray studies, and ward but not special nursing. A charge for board is made at the same rate as in the University dining halls. Refraction of eyes and treatment of teeth and of all chronic and pre-existing conditions, such as diseased tonsils, hernia, elective surgery, chronic skin conditions, endocrine disturbances, etc., or accidents or illnesses occurring during vacations or while off the campus are not included in this service. The cost of any necessary braces and orthopaedic appliances, as well as of special nursing must be borne by the patient. If the student has insurance providing hospitalization, surgical, or medical benefits, the benefits shall be applied to the cost of his medical care.

## *Student Government*

The members of the student body elect an Honor Council, in which each class is represented. It is the duty of the Honor Council to hear all cases involving breaches of conduct on the part of members of the student body. All new students entering the School are required to comply with this system of government.

## *Medical Military Science and Tactics*

COLONEL WILLIAM EDGAR WILKINSON, B.S., M.D., *Professor of Military Science and Tactics; Associate in Psychiatry.*

The course consists of instruction in military medicine and military science and tactics. The student receives compensation during the last two years and while at a required summer encampment. Those completing the program will be offered reserve commissions in the Army Medical Corps or the Air Force Medical Corps and will be given priority in the selection of interns for military hospitals. Details of the program, eligibility, compensation, etc., may be obtained by addressing the PMS&T, Duke University School of Medicine.



# Curriculum of the School of Medicine



THERE is no summer quarter between the first and second years, but in the two clinical years the subjects of the autumn, winter and spring terms are repeated in the summer quarter. This accelerated schedule is optional,\* and students may take their first year, and three quarters in each of their subsequent years, and receive their certificates in four calendar years, *or*, if they receive permission from the Curriculum Committee, they may at the end of their second year take the clinical quarters given during the summers and receive their certificates in three and one quarter calendar years.

Every effort is made to emphasize the close relationship of pre-clinical and clinical instruction. Members of the clinical staff assist in the teaching of preclinical subjects and demonstrate to the students of the first two years patients whose conditions illustrate the subjects being taught. Thus, from the student's first days, he is impressed with the interdependence of all branches of medical science. In the junior and senior years, preclinical instructors assist the clinical staff in presenting the underlying basis of disease.

The free time in this curriculum may be spent in elective work or anything else the student wishes to do. No credits are given, but opportunity is provided for each student on his own initiative to obtain additional training which he may feel to be necessary or desirable. Elective courses have been organized for small groups, or the time may be utilized in independent work (including research) in any department, clinical or preclinical. Arrangements for taking such courses or doing other work are to be made through the Curriculum Committee.

It is hoped that many students will migrate to other medical schools for one or more quarters. Those who wish to do so, or to substitute a schedule different from that listed below, must have their programs approved in advance by the Curriculum Committee, and afterwards must present evidence that they have completed work comparable to that of the curriculum during the quarters in which they were away or were following an altered schedule.

\* See footnote on the next page.

## OPTIONAL ACCELERATED SCHEDULE\*

(The hours for these courses will be posted on the bulletin board.)

## FIRST YEAR

29 September 1952 to 7 February 1953.	
Anatomy (including histology and neuroanatomy) .....	638
9 February to 13 June 1953.	
Physiology .....	341
Biochemistry .....	279
Psychobiology .....	12
Free time .....	17

## SECOND YEAR

## AUTUMN QUARTER (4th):

29 September to 13 December 1952.

Pharmacology .....	143
Bacteriology .....	176
Parasitology .....	44
Public Health and Biostatistics .....	66

## WINTER QUARTER (5th):

5 January to 21 March 1953.

Pathology .....	231
Public Health .....	66
Introduction to Medicine and Surgery .....	132

## SPRING QUARTER (6th):

30 March to 13 June 1953.

Pathology .....	223
Introduction to Medicine .....	111
Clinical Microscopy .....	95

## JUNIOR YEAR

## SUMMER QUARTER (7th):\*

6 July to 19 September 1953.

Medicine (Junior) .....	429
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## AUTUMN QUARTER (8th):

5 October to 19 December 1953.

Surgery (Junior) .....	429
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## WINTER QUARTER (9th):\*

5 January to 21 March 1953.

Obstetrics and Gynecology (Junior) .....	352
Neuropsychiatry .....	77

## SENIOR YEAR

## SPRING QUARTER (10th):\*

30 March to 13 June 1953.

Medicine (Senior) .....	390
Free time .....	39

## SUMMER QUARTER (11th):\*

6 July to 19 September 1953.

Surgery (Senior) including urology and orthopaedics .....	390
Electives .....	39

## AUTUMN QUARTER (12th):\*

5 October to 19 December 1953.

Pediatrics .....	297
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\* This optional schedule may be made compulsory, and a thirteenth elective quarter may be added to the senior year.

\* The clinical instruction is repeated each quarter in order to utilize all the clinical material and to have small groups of students. Consequently, students may vary the order of the seventh, eighth, and ninth quarters, and also the order of the tenth, eleventh, and twelfth quarters. The above schedule merely illustrates the program of one group.

Surgery .....	41
Neuropsychiatry .....	41
Preventive Medicine .....	11
Electives .....	39

## SUMMARY

Total number of hours in curriculum .....	5,148
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## *Requirements for the Degree of Bachelor of Science in Medicine*

After the completion of six quarters in the Duke University School of Medicine, Duke University, on the recommendation of the Committee on Health Affairs grants the degree of Bachelor of Science in Medicine to medical students who have completed creditable investigative work, prepared an acceptable report of the investigation, and passed an examination upon the subject of the investigation before an advisory committee. Students who elect to undertake work toward this degree must obtain written permission from the Committee on Health Affairs after approval of their program by the head of the department in which the work is to be done. No credit toward this degree is given for additional college work. All students in good standing are encouraged to undertake such investigative work as they may elect with the approval of the head of the department in which they wish to work. All requirements must be completed three months prior to the date on which the B.S. degree is requested.

## *Requirements for the Degree of Doctor of Medicine*

The degree of Doctor of Medicine is conferred on those who have completed, to the satisfaction of the Committee on Health Affairs, the twelve quarters of 11-12 weeks each of the curriculum of the School of Medicine, the preclinical and clinical examinations, and have signed an agreement that they will spend at least two years of the succeeding three years in hospital or laboratory work acceptable to the Committee on Health Affairs. As a guarantee of this pledge the diploma is deposited in the Treasurer's Office until after the completion of this training. Failure to fulfill this agreement constitutes a waiver of any claim to possession of the diploma and the degree of Doctor of Medicine. At present, one half of the required period of approved hospital or laboratory training may be active duty in the Army, Navy or U. S. Public Health Service.

# Admission



## *Application for Admission*

**A**PPPLICATION forms may be obtained by writing to the Committee on Admission, Duke University School of Medicine, Durham, N. C. A check or post office money order for \$5, payable to Duke University School of Medicine, must accompany each request for an application. This is not refundable. If further information is required after the Committee has studied the completed application, a personal interview with the Committee on Admission or a Regional Representative is arranged for the applicant. The candidate then is notified as soon as possible whether he has been accepted or declined; if accepted, he must send a deposit of \$50 by January 1 to insure enrollment. This money is applied toward the tuition. The next first-year class will be admitted October 5, 1953. Applications must be submitted prior to December 1 of the preceding year. Due to the large number of applicants to all medical schools, candidates are advised to apply to at least four schools. The number of students in each class is limited to 76, but only those students will be accepted who give promise of being a credit to the School and the medical profession. Women are received on the same terms as men. In the event of vacancies, students from other medical schools may be considered for admission to any quarter for which their previous training has fitted them. Each application for advanced standing will be considered upon its own merits.

## *Requirements for Admission*

*"I request that great care and discrimination be exercised in admitting as students only those whose previous record shows a character, determination and application evincing a wholesome and real ambition for life."—JAMES B. DUKE.*

*Intelligence and character are the essential qualifications for admission.*

The minimum requirements for admission to this School include approved college credits of not less than ninety semester hours, which shall include adequate preparation in English, mathematics, physics, biology, and chemistry. This preparation should be obtained in college courses of one-year duration, except in English and chemistry. In those subjects, two years are recommended. The second year in English should be chiefly composition and theme writing. The first

year of chemistry should be general (inorganic), and the second, analytic and organic chemistry.

A premedical student should be aware of the importance of a well-rounded general education as a preparation for the study of medicine and not limit himself to scientific courses. He would be better advised to secure a knowledge of the principles and a thorough appreciation of the interrelations of the basic sciences than to accumulate credits in many courses. He should learn how to work independently, to observe critically, and to analyze, rather than simply store, the information presented. His choice of studies, beyond those required for admission, should be governed by his own chief interests and by the intellectual stimulus to be derived from the work. His major interest may be in any field, scientific or otherwise, and should provide an opportunity for the demonstration of his real ability. In general, he should avoid courses in subjects which are included in the medical curriculum.

The selection of students is based upon the quality rather than the quantity of preparation and upon demonstrated evidence of personal attributes of intelligence, character, and general fitness for the study and practice of medicine. In considering an applicant many sources of information may be consulted including (1) his curricular and extracurricular college record, (2) carefully prepared, confidential appraisals by teachers who know him personally, (3) his percentile rating on the Medical College Admission Test,\* and (4) the results of an interview with members of the Admission Committee or one of its Regional Representatives.

### REGIONAL REPRESENTATIVES OF THE COMMITTEE ON ADMISSION

Birmingham, Alabama.....	M. Y. DABNEY
Los Angeles, California.....	JEREMIAH W. KERNER
Pasadena, California.....	ROBERT H. PUDENZ
San Francisco, California.....	EMILE F. HOLMAN
San Francisco, California.....	CHARLES H. DANFORTH
Montreal, Canada.....	WILDER PENFIELD
Denver, Colorado.....	V. VERNON ALTVATER
New Haven, Connecticut.....	ALLEN K. POOLE
Jacksonville, Florida.....	EDWARD JELKS
Lakeland, Florida.....	CHARLES LARSEN, JR.
Atlanta, Georgia.....	JAMES E. PAULLIN
Atlanta, Georgia.....	E. B. DUNLAP, JR.
Savannah, Georgia.....	VICTOR H. BASSETT
Chicago, Illinois.....	GEORGE H. GARDNER
Iowa City, Iowa.....	ARTHUR L. BENTON
Iowa City, Iowa.....	PHILIP C. JEANS
Wichita, Kansas.....	THOMAS JAGER

\* This test is given at many of the colleges during the spring and autumn terms. If information is not available locally, it may be obtained from the Educational Testing Service, P.O. Box 592, Princeton, N. J.

Louisville, Kentucky.....	MALCOLM D. THOMPSON
Louisville, Kentucky.....	S. I. KORNHAUSER
New Orleans, Louisiana.....	PHILIP H. JONES, JR.
Baltimore, Maryland.....	CHARLES E. LEACH
Baltimore, Maryland.....	JOHN T. KING, JR.
Boston, Massachusetts.....	JAMES H. CURRENS
Port Huron, Michigan.....	WILLIAM T. DAVISON
Rochester, Minnesota.....	W. H. HOLLINSHEAD
Kansas City, Missouri.....	RALPH H. MAJOR
St. Louis, Missouri.....	DORIS SURLS WOOLSEY
Butte, Montana.....	CAROLINE MCGILL
New York, New York.....	LAWRENCE S. KUBIE
New York, New York.....	BERTRAM J. SANGER
Rochester, New York.....	WILLIAM S. MCCANN
Syracuse, New York.....	PHILIP P. ARMSTRONG
Cleveland, Ohio.....	B. S. KLINE
Columbus, Ohio.....	CHARLES A. DOAN
Dayton, Ohio.....	R. L. JOHNSTON
Toledo, Ohio.....	JOHN L. STIFEL
Oklahoma City, Oklahoma.....	WILLIAM M. TAYLOR
Tulsa, Oklahoma.....	JAMES W. KELLY
Portland, Oregon.....	KARL H. MARTZLOFF
Johnstown, Pennsylvania.....	W. FREDERIC MAYER
Palmerton, Pennsylvania.....	R. P. BATCHELOR
Pittsburgh, Pennsylvania.....	DAVENPORT HOOKER
Providence, Rhode Island.....	MARSHALL N. FULTON
Scranton, Pennsylvania.....	GEORGE A. CLARK
Charleston, South Carolina.....	EDWARD F. PARKER, JR.
Charleston, South Carolina.....	J. I. WARING
Columbia, South Carolina.....	BEN N. MILLER
Columbia, South Carolina.....	WILLIAM WESTON
Columbia, South Carolina.....	JAMES H. GIBBES
Chattanooga, Tennessee.....	RICHARD VAN FLETCHER
Memphis, Tennessee.....	RAPHAEL E. SEMMES
Kingsport, Tennessee.....	RAYMOND C. RAMAGE
Nashville, Tennessee.....	SAM L. CLARK
Sewanee, Tennessee.....	HENRY T. KIRBY-SMITH
Dallas, Texas.....	A. JAMES GILL
Galveston, Texas.....	A. E. HANSON
San Antonio, Texas.....	P. I. NIXON
Salt Lake City, Utah.....	THOMAS RAY BROADBENT
Charlottesville, Virginia.....	HENRY B. MULHOLLAND
Richmond, Virginia.....	I. A. BIGGER
Seattle, Washington.....	WILLIAM A. MACCALL
Huntington, West Virginia.....	R. M. WYLIE
Madison, Wisconsin.....	WALTER E. SULLIVAN
Laramie, Wyoming.....	WILLIAM R. NESBITT



# Fees and Expenses



ALL FEES for each quarter are due and payable at the beginning of each quarter, and no student will be admitted to classes until these fees have been paid at the University Treasurer's Office. A fine of \$5.00 is charged for late registration. No credit will be given for any quarter in which the tuition has not been paid at the Treasurer's Office, whether the work has been done here or elsewhere, except that students who have been permitted by the Curriculum Committee to spend a quarter at another medical school or hospital may subtract the amount of tuition paid at this other medical school or hospital from that due here for that quarter.

It is not advisable for a student to attempt outside work to defray his expenses; the results usually are disastrous to his health and academic standing.

## FEES AND EXPENSES

Tuition, per quarter .....	\$300		
General Fee, per quarter, including Health, Commencement, and Diploma Fees .....	7.50		
Athletic Fee, not including Federal tax, optional, per year, payable in the autumn quarter .....	10.00		
Room-rent, per quarter* (estimated) .....	58.50		
Board, per quarter (estimated) .....	120	to	130
Laundry, per quarter (estimated) .....	10	to	20
Books, per quarter (estimated) .....	25	to	50
National Board of Medical Examiners, Fees† \$25 (Part I) , \$20 (Part II)			
Microscope, ophthalmoscope, otoscope, and other equipment, which are required of each student and which must conform to rigid standards, may be obtained on a rental basis from the Univer- sity, per quarter .....	45	to	65
Estimated total expenses, per month .....	150	to	250

\* Information and the regulations about rooms in the Men's Graduate Center and Epworth Hall on the Woman's College Campus can be obtained by writing to the Duke University Housing Bureau, Durham, N. C. All dormitory rooms are occupied under the rules and regulations established by the University. Residence in University dormitories is not required. Rooms may be reserved by new applicants only if they have been accepted officially for admission to the University and if they have paid a room deposit of \$25 to the Duke University Housing Bureau. The room deposit is refundable providing application for refund is made 60 days prior to the registration date of the semester for which the room is reserved or within 30 days after official withdrawal from the University Residence Hall. Students already in residence may retain their rooms for the succeeding quarter by applying to the Duke University Housing Bureau for confirmation of the reservation.

† Payable at the beginning of the quarter in which a student is eligible for the examination.



### *Angier B. Duke Memorial and Other Loan Funds*

The Angier B. Duke Memorial, Incorporated, administers through an advisory committee of the officers of the University a loan fund for students. In addition, the loan fund of the W. K. Kellogg Foundation and the Pfizer Scholarship Fund are available for students who are not financially able to meet their expenses. Medical students, after their third quarter, may apply for loans from these sources. No University scholarships are awarded in the School of Medicine. The loan funds are administered in accordance with the following regulations:

1. No loan will be made to a student who violates any of the regulations of the University or who is not doing outstanding classwork.
2. Loans will be made only to students who are taking full courses of study that lead to a degree, and all loans must be arranged not later than one week after the beginning of a quarter.
3. Every applicant for a loan must present with the application such security as the President of the University may approve, and no money will be advanced before a note with approved security is in the hands of the Treasurer of the University.

### *Frederic M. Hanes Fellowships*

Starting July 1, 1947, any Duke medical student after his first year is eligible for a leave of absence and a Fellowship of \$150 per month for full-time research work at Duke with special emphasis in a pre-clinical subject. These Fellowships will be granted on the recommendation of the Committee on Health Affairs for a period of six months, but may be renewed. Information may be obtained from Dr. D. T. Smith.

### *Awards to Medical Students and Interns*

(Additional information may be obtained from the Dean's Office.)

### *Borden Undergraduate Research Award in Medicine*

An award of \$500 may be given to the Duke Senior who, in the opinion of the Committee on Health Affairs has performed the best research work during his or her entire medical course, including that done during the preclinical years, and thesis for the B.S. degree in Medicine. *Applicants should submit their papers, articles or reprints to the Dean at least three months prior to expected date of graduation.*

### *Trent Prize in the History of Medicine*

An annual award of fifty dollars for the best original and publishable essay on any topic in the history of medicine or its allied sciences by a Duke medical student or house-officer has been established by Mrs. J. C. Trent in memory of the late Dr. Josiah C. Trent, who had been Assistant Professor of Surgery in Charge of Thoracic Surgery at Duke, and who had greatly increased the interest of the staff and students in medical history. Essays should be submitted to Dr. Joseph E. Markee, the Chairman of the Trent Award Committee, by April 1 of the year in which they are to be considered.

*The J. C. Trent Medical History Society*, open to all Duke medical students and house officers, meets the second Tuesday of each month, either for informal discussions among its members or for a guest lecture, to which the public is welcomed. The Society also sponsors the *J. C. Trent Memorial Lecture*, established by Mrs. Trent.

### *Bagby Award in Pediatrics*

The best Duke Pediatric Intern is eligible for a subscription to the *American Journal of the Diseases of Children*.

### *Mosby Awards*

A text or reference book from the C. V. Mosby catalog may be selected by each of the five best seniors.

# Departments of Instruction



## *Anatomy*

JOSEPH ELDRIDGE MARKEE, B.S., Ph.D., *Professor of Anatomy and Chairman of the Department.*

B.S. and Ph.D., Chicago, 1925 and 1929; Douglas Smith Fellow in Anat., 1929; Instr. in Anat., Chicago, 1929; Research Fell., Gen. Ed. Bd., Carnegie Lab. of Embry., Balto., 1935-1936; Visiting Prof. of Anat., Univ. of Tenn., 1942; Instr., Ass't. Prof., Assoc. Prof. and Prof. of Anat., Stanford, 1929-1943; 1943—

DUNCAN CHARTERIS HETHERINGTON, A.B., M.A., Ph.D., M.D., *Professor of Anatomy.*

A.B., Colorado Coll., 1919; M.A. and Ph.D., Illinois, 1920 and 1922; M.D., Johns Hopkins, 1926; Instr. in Anat., Vanderbilt Med. Sch., 1926-1930; Associate Prof. of Anat., Duke, 1930-1945; 1930—

JOHN WENDELL EVERETT, A.B., Ph.D., *Professor of Anatomy.*

A.B., Olivet, 1928; Ph.D., Yale, 1932; Instr. in Biol., Goucher, 1930-1931; Ass't. and Assoc. Prof. of Anat., Duke, 1932-1946; 1932—

TALMAGE LEE PEELE, A.B., M.D., *Associate Professor of Anatomy and Assistant Professor of Medicine.*

A.B., and M.D., Duke, 1929 and 1934; Ass't. in Anat., Duke Med. Sch., 1931-1934; Int. and Ass't. Res. in Med., Duke Hosp., 1934-1936; Int. and Res. in Neurol., Bellevue Hosp., New York City, 1936-1937; Fellow in Anat., Johns Hopkins Med. Sch., 1937-1938; Instr. in Anat., Rochester Med. Sch., 1938-1939; Visiting Ass't. Prof. Neurol., Instit. Neurol., Northwestern Univ. Med. Sch., 1945; 1939—

ROLAND FREDERICK BECKER, B.S., M.S., Ph.D., *Associate Professor of Anatomy.*

B.S. and M.S., Mass. State Coll., 1935 and 1937; Ph.D. Northwestern Univ. Med. Sch., 1940; Research in Child Psychology, Univ. of Iowa, 1938-39; Research Ass't. in Anat., Northwestern, 1940; Instr., Assoc. and Ass't. Prof. in Anat., Northwestern, 1940-46; Ass't. Prof. of Anat., Univ. of Wash. Med. Sch., 1946-47; Acting Head in Anat., Univ. of Wash. Med. Sch., 1947-48; Assoc. Prof. and Head of Neurological Div., The Daniel Bough Instit. of Anat., Jefferson Med. Coll., 1949-51; 1951—

KENNETH LINDSAY DUKE, A.B., Ph.D., *Associate Professor of Anatomy.*

A.B., Brigham Young, 1936; Ph.D., Duke, 1940; Grad. Ass't. in Zool., Brigham Young Univ., 1936-1937; Grad. Ass't. in Zool., 1937-1939, and Fellow in Zool., Duke, 1939-1940; Visiting Instr. in Anat., U. of Missouri, 1944; Visiting Ass't. Prof. of Anat., U. of Tenn. Sch. of Med., 1949; Assoc. in Anat., and Ass't. Prof., Duke, 1940-1946; 1940—

GEORGE JAY BAYLIN, A.B., M.D., *Professor of Radiology and Associate in Anatomy.*

FRED R. HOOK, JR., M.D., *Instructor in Anatomy.*

THOMAS B. WATT, JR., B.S., *Instructor in Anatomy.*

MURRAY T. JACKSON, M.D., *Instructor in Anatomy.*

The required courses of instruction in gross human anatomy, histology, and neurology are scheduled for five and one-half days a week for a period of eighteen weeks during the first year. Emphasis is placed upon the study of material in the laboratory. In an attempt to utilize more fully the laboratory time, visual educational methods are employed as fully as possible. These techniques consist of colored motion pictures of demonstration dissections, colored lantern

slides, and motion pictures, both embryological and neurological. All of the instruction is designed to be as informal and as nearly individual as possible. General principles and the functional viewpoint of living anatomy are stressed in the hope that the student may be stimulated to secure a working knowledge of anatomy in the broadest sense. Whenever possible, fresh tissues and living cells are made available for examination, and clinical cases exemplifying anatomical principles are studied whenever they are available at appropriate times. Through the co-operation of the Department of Radiology, the students are given an opportunity to study portions of the living human body as revealed by the fluoroscope and roentgenograph. The following elective courses are offered:

*Demonstrations in Anatomy.* Using dissections already prepared, weekly demonstrations of selected regions or systems are made by the members of the group. Sixth quarter—Two hours per week by arrangement. Second-year students in groups of 10.

*Review in Anatomy.* During the sixth quarter, a review in anatomy will be presented by the visual education methods outlined above, covering gross and neuro-anatomy, and histology.

*Special Neuro-anatomy.* Laboratory work and conferences upon selected portions of the human central nervous system. Limited to 6 junior or senior students. Two hours weekly by arrangement.

*Brain Modeling.* Free-hand reconstruction in clay, from gross and sectioned material, of the chief tracts and nuclei of the human brain stem. By arrangement—4 to 10 students.

*Experimental Neurology.* An operative and laboratory study of the effect of various lesions upon the central and peripheral portions of the nervous system. 4 to 8 junior and senior students by arrangement. Prerequisite—operative surgery.

*Advanced Studies in Anatomy.* These may be arranged at any time under the direction of the various members of the staff.

*Review for Orthopaedic Anatomy.* A one hour weekly review of the anatomy related to orthopaedic surgery.

*Review for Surgical Anatomy.* A one hour weekly review of the anatomy related to general surgery.

## *Biochemistry*

PHILIP HANDLER, B.S., M.S., Ph.D., *Professor of Biochemistry and Nutrition and Chairman of the Department.*  
B.S., Coll. of City of New York, 1936; M.S. and Ph.D., Illinois, 1937 and 1939; *Biochemist, Duke Hospital, 1939—*

HAYWOOD MAURICE TAYLOR, B.S., M.S., Ph.D., *Professor of Toxicology and Associate Professor of Biochemistry.*

B.S., M.S., and Ph.D., North Carolina, 1920, 1921 and 1924; Instr. in Chem. and Pharmaceut. Chem., North Carolina, 1920-1925; Research Chemist, E. R. Squibb and Sons, and Fisk Rubber Co., 1925-1928; Instr. in Ophthalmol., and Chemist to Wilmer Institute, Johns Hopkins Hosp., 1928-1930; Visiting Fellow in Forensic Med., New York Univ., 1934; *Associate Biochemist and Toxicologist, Duke Hospital, 1930—*

JEROME SYLVAN HARRIS, A.B., M.D., *Professor of Pediatrics and Associate Professor of Biochemistry.*

MARY LILIAS CHRISTIAN BERNHEIM, B.A., M.A., Ph.D., *Associate Professor of Biochemistry.*  
B.A., M.A., and Ph.D., Cambridge, 1925, 1927, and 1929; Fellow, Newnham, 1927-1930; 1930—

GEORGE WILLIAM SCHWERT, JR., B.A., Ph.D., *Associate Professor of Biochemistry.*  
B.A., Carlton Coll., 1940; Ph.D., Univ. of Minn., 1943; Instr. and Res. Assoc. in Biochem., Duke, 1946-1948; Markle Scholar in Med. Science, 1949; 1946—

WILFRIED F. H. M. MOMMAERTS, B.A., M.A., Ph.D., *Lecturer in Biochemistry and Established Investigator of the American Heart Association.*  
B.A., M.A., Leiden, Holland, 1937, 1939; Ph.D. Kolozvar, 1943; Visiting Assoc. Prof. Biochem., Adj. Prof. Biochem., Assoc. Prof. of Physiol., American Univ. of Beirut, 1945-1948; 1948—

HENRY KAMIN, B.S., Ph.D., *Associate in Biochemistry and Principal Scientist at the Durham V.A. Hospital.*  
B.S., Col. of City of N. Y., 1940; Ph.D., Duke, 1948; Res. Ass't. in Biochem., Duke, 1940-1949; 1940—

LEO B. DANIELS, *Technical Associate in Biochemistry.*

#### FELLOWS

PHILIP KHAIRALLAH, B.S., M.D., *American Heart Association Fellow in Biochemistry.*  
B.S., Amer. University of Beirut, 1947; M.D., Columbia, 1951; 1951—

MILTON TABACHNICK, B.S., Ph.D., *U. S. Public Health Service Post-doctoral Fellow in Biochemistry.*  
B.S., Ph.D., Univ. of Calif., 1947, 1952; 1952—

SHUNZI MIZUHARA, B.S., M.D., *Fellow in Biochemistry.*  
B.S., M.D., Okayama Univ., Japan, 1941, 1945; Instructor, Ass't. Prof. of Biochemistry, Okayama Univ., 1945-1952; 1952—

FLORAPEARL A. COBEY, B.S., *U. S. Public Health Service Fellow in Biochemistry.*  
B.S., Univ. of Chattanooga, 1949; 1949—

IRVING GREEN, A.B., *U. S. Public Health Service Fellow in Biochemistry.*  
A.B., New York Univ., 1948; M.S., Fordham Univ., 1950; 1950—

MAUNG THAN NYUN, B.S., *U. S. Public Health Service Fellow in Biochemistry.*  
B.S., University of Rangoon, 1942; 1952—

#### ASSISTANTS

J. SIDNEY FORD, B.S., *Research Assistant in Biochemistry.*  
A.B., Wesleyan College, Macon, Ga., 1951; 1951—

IRWIN FRIDOVICH, B.S., *Research Assistant in Biochemistry.*  
B.S., Coll. of City of New York, 1951; 1951—

ANDREW J. GLAID, A.B., M.S., *Research Assistant in Biochemistry.*  
A.B., M.S., Duquesne Univ., 1949, 1950; 1950—

MAIRE T. HAKALA, M.S., *Research Assistant in Biochemistry.*  
M.S., Univ. of Helsinki, 1947; 1950—

JOSEPH C. RUPP, A.B., *Research Assistant in Biochemistry.*  
A.B., Muhlenburg, 1950; 1950—

GEORGE S. DUDA, B.S., *Research Assistant in Biochemistry.*  
B.S., College of City of New York, 1951; 1952—

The required course in general biochemistry for first-year students is given over a period of eighteen weeks during the first year. Two lectures, four laboratory periods, and one conference period per week are devoted first to the correlation of the fundamental facts and theories of physical and organic chemistry of proteins, fats, and carbohydrates with the chemistry of living organisms; followed by an inten-



sive study of the chemical aspects of the processes of digestion, absorption, circulation and respiration, acid-base and salt equilibrium, intermediary and over-all metabolism. Each student carries out on himself a fairly complete metabolism balance study involving quantitative analyses of blood and urine.

Since the success of the students in this course is largely determined by the adequacy and ready availability of their premedical training, it is urged that all students review the fundamental laws, theories, and facts of chemistry before the beginning of the course. A circular outlining the topics requiring special attention is sent to all students upon admission. Additional copies of the circular may be obtained from the Dean's Office.

*Biochemical Research.* The facilities of the department, including various types of research equipment and the clinical material of the blood chemistry laboratory, are available to properly qualified students for independent or supervised investigations. Chemical investigations of problems in biochemistry or in conjunction with the clinical and pathological departments may be carried on.

*Chemistry of Proteins and Enzymes.* A two-hour seminar is given weekly throughout the Autumn, Winter and Spring Quarters.

*Physical Biochemistry.* A two-hour lecture course with demonstrations, given weekly in Autumn and Winter Quarters. Given alternately with *Chemistry of Proteins and Enzymes*.

*Intermediary Metabolism.* A two-hour lecture course and seminar conducted during Autumn, Winter and Spring Quarters. Given alternately with *Seminar in Nutrition*.

*Advanced Seminar in Nutrition.* A two-hour lecture and seminar course in modern nutritional concepts. Given alternately with *Intermediary Metabolism* during Autumn Quarter.

*Biochemistry of Disease.* A seminar course meeting once weekly to discuss etiology and pathogenesis of metabolic diseases from the biochemical viewpoint. Given in alternate years in the Spring Quarter.

## *Physiology and Pharmacology*

FRANK GREGORY HALL, B.A., M.A., Ph.D., *Professor of Physiology and Chairman of the Department.*

B.A., Milton, 1917; M.A. and Ph.D., Wisconsin, 1921 and 1923; Prof. of Biol., Milton, 1923-1926; Assoc. Prof. and Prof. of Zool., Duke Univ., 1926-1942; Lt. Col., Chief, Physiol. Branch, Army Air Forces, 1942-1945; 1945—

GEORGE SHARP EADIE, M.A., M.B., Ph.D., *Professor of Physiology and Pharmacology.* M.A. and M.B., Toronto, 1923 and 1921; Ph.D., Cambridge, 1927; Rotat. Int., Toronto Gen. Hospital, 1921-1922; Demonstrator in Biochem., Toronto, 1923-1925; Ass't. in Physiol., Dalhousie, 1927-1928; Assoc. in Physiol., Johns Hopkins Med. Sch., 1928-1930; 1930—

FREDERICK BERNHEIM, A.B., Ph.D., *Professor of Pharmacology.*

A.B., Harvard, 1925; Ph.D., Cambridge, 1928; Nat'l Research Council Fellow, Johns Hopkins Med. Sch., Dept. of Physiol. Chem., 1929-1930; 1930—

FOREST DRAPER MCCREA, B.S., M.S., Ph.D., *Associate Professor of Physiology and Pharmacology.*

B.S., Purdue, 1918; M.S., Illinois, 1923; Ph.D., Wisconsin, 1927; Instr. in Physiol., Illinois, 1920-1923; Instr. in Physiol., Wisconsin Med. Sch., 1923-1927; Ass't. Prof. of Physiol. and Pharmacol., Georgia Med. Sch., 1927-1929; Sr. Instr. in Physiol., Western Reserve Med. Sch., 1929-1930; 1930—

KENNETH EARL PENROD, B.S., Ph.D., *Associate Professor of Physiology and Pharmacology and Assistant Dean.*

B.S., Miami Univ., 1938; Ph.D., Iowa State Coll., 1942; Instr. in Physiology, Miami Univ., 1940-1941; Army Air Forces, 1942-1946; Ass't. Prof. in Physiology, Iowa State Coll., 1946; Ass't. Prof. of Physiology, Boston Univ., 1946-1950; 1950—

MACDONALD DICK, B.A., M.A., M.D., *Assistant Professor of Physiology and Pharmacology, and Associate in Medicine.*

B.A. and M.A., Virginia, 1922 and 1923; M.D., Johns Hopkins, 1928; Int. and Ass't. Res., Vanderbilt Univ. Hosp., 1928-1930; Ass't. in Path. and Bact., Rockefeller Instit., 1930-1932; *Assistant Physician, Duke Hospital, 1932—*

WILLIAM ERNEST DETURK, B.A., M.A., Ph.D., M.D., *Assistant Professor of Pharmacology.*

B.A., Illinois, 1937; M.A., Illinois, 1938; Ph.D., Duke, 1940; M.D., Vanderbilt, 1948; Instructor in Biology, Vanderbilt, 1940-1943; Res. Associate, Vanderbilt, 1943-1947; Intern, Vanderbilt Univ. Hosp., 1948-1949; 1949—

FRANK LIBMAN ENGEL, A.B., M.D., *Associate Professor of Medicine, and Associate in Physiology.*

GORDON R. MCKINNEY, A.B., M.S., Ph.D., *Lecturer in Pharmacology and Fellow in Medicine.*

CHARLES FOREMAN, M.A., *Instructor in Physiology.*

M.A., Duke, 1951; 1952—

HOWARD LANGLEY, *Technical Associate in Physiology.*

The course in medical physiology for first-year students is given over a period of eighteen weeks during the first year. There are lectures, laboratories, and conferences each week in which are presented the general principles of human physiology and their general application to the practice of medicine. This course runs parallel to biochemistry.

The course in pharmacology is given in the first quarter of the second year. Lectures, laboratories, and conferences deal with the mode of action of drugs in terms of biochemical and physiological processes.

*Physiological and Pharmacological Research:* The facilities of the department include modern types of research equipment. There are special facilities for research in the field of respiration; circulation; and cellular metabolism. Properly qualified students are permitted to undertake original research in physiology and pharmacology under direction of various members of the staff.

*Seminars* in special fields of physiology are offered to graduate students by various members of the staff.

## *Microbiology*

DAVID TILLERSON SMITH, A.B., M.D., *Professor of Bacteriology, Chairman of the Department, and Associate Professor of Medicine.*

A.B., Furman, 1918; M.D., Johns Hopkins, 1922; Int. in Ped., Johns Hopkins Hosp., 1922-1923; Ass't. in Path. and Bact., Rockefeller Instit., 1923-1924; Bacteriologist, Pathologist and Director, Research Laboratory of N. Y. State Hosp. for Tuberculosis, Raybrook, 1924-1930; *Bacteriologist and Associate Physician, Duke Hospital, 1930—*



NORMAN FRANCIS CONANT, B.S., A.M., Ph.D., *Professor of Mycology and Associate Professor of Bacteriology.*

B.S., Bates, 1930; A.M. and Ph.D., Harvard, 1931 and 1933; Research Fellow, Laboratoire de Parasitologie, Fac. de Médecine, Paris, 1933-1934; Research Ass't., Harvard Med. Sch. and Mass. Gen'l. Hosp., Jan. 1, to Oct. 1, 1935; Assoc. Prof. of Bacteriology and Mycology, 1935-1946; *Mycologist, Duke Hospital, 1946—*

SAMUEL PRESTON MARTIN, A.B., M.D., *Assistant Professor of Medicine and of Bacteriology.*

JOSEPH W. BEARD, B.S., M.D., *Associate Professor of Virology and Professor of Surgery.*

HARVEY GRANT TAYLOR, A.B., A.M., M.D., *Associate Professor of Bacteriology and Pediatrics, and Associate Dean.*

SUSAN GOWER SMITH, A.B., M.A., *Associate in Nutrition.*

A.B., Barnard, 1919; M.A., Columbia, 1924; Chemist, N. Y. State Hosp., 1926-1930; Instr. in Biochem., Instr. in Physiol. and Pharm., Assoc. in Physiol. and Nutrition, and Associate in Med., Duke Hospital, 1930-1946; 1930—

HILDA POPE, A.B., A.M., Ph.D., *Assistant Professor of Bacteriology.*

A.B., Ga. State Coll. for Women, 1944; A.M., Ph.D., Duke, 1946, 1949; *Assistant Bacteriologist, Duke Hospital, 1948—*

MARY ALVERTA POSTON, A.M., *Associate in Bacteriology.*

A.M., Duke, 1939; Ass't. in Biol. Lab., Johns Hopkins Hosp., 1922-1920; *Assistant Bacteriologist, Duke Hospital, 1930—*

HEINZ KARRER, M.D., *Instructor in Bacteriology.*

M.D., Zurich, 1947; Hooper Foundation, 1947-1949; Int., John Sealy Hosp., 1949-1950; 1950—

H. W. CRAIG, *Technical Instructor in Microbiology.*

*Bacteriology, Immunology, and Mycology.* The required course is given in the fourth quarter. An intensive study is made of the common bacteria, fungi, and viruses which cause disease in man. The scope of the laboratory course is reasonably wide and acquaints the student with all the methods and procedures employed in bacteriological laboratories. Most of the lecture time is devoted to the immunological and epidemiological aspects of infection. The instruction is designed to give the students a clear conception of: (1) how organisms gain entrance to the body, (2) the type of poisons which they produce, (3) the nature of immune bodies which are produced by the host, and (4) the methods of preventing the disease by active and passive immunization.

*Research Bacteriology.* Opportunities for original investigations are afforded a few specially qualified students.

*Clinical Bacteriology.* During their clinical clerkships on medicine (one quarter each for junior and senior classes), the students may perform the routine and special bacteriological work for the patients assigned to them on the teaching service, under the direction of the Department of Bacteriology and in parallel with the Biological Division of the medical clinic.

## *Pathology*

WILEY DAVIS FORBUS, A.B., M.D., *Professor of Pathology and Chairman of the Department.*

A.B., Washington and Lee, 1916; M.D., Johns Hopkins, 1923; Res. and Assoc. Pathologist, Johns Hopkins Hosp., 1926-1927 and 1929-1930; Guest Ass't. Pathol. Instr., Ludwig Maximilian's Univ., Munich, 1928; Pathol., Balto. City Hosps.; Consulting Pathologist, Frederick City Hosp., 1925-1930; Ass't. Instr. and Assoc. in Path., Johns Hopkins Med. Sch., 1923-1930; *Pathologist, Duke Hospital, 1930—*

GEORGE MARGOLIS, A.B., M.D., *Assistant Professor of Pathology.*

A.B., Johns Hopkins, 1936; M.D., Duke, 1940; Int. in Path., Duke, 1940-1941; Ass't. Res. in Path., Duke, 1941-1943; Res. in Path., Duke, 1943-1944; M.C., A.U.S., 1944-1947; Volunteer in Neuropath., Montefiore Hosp., N. Y., 1948; Assoc. in Path. in charge of Neuropath., 1947-1951; *Assistant Professor of Pathology in charge of Neuropathology, 1951—*

E. STANFIELD ROGERS, B.S., M.D., *Associate in Pathology.*

B.S., Duke, 1942; M.D., Duke, 1944; Intern. in Path., April, 1943-October, 1943 and July, 1944-April, 1945; A.U.S., 1945; Res. in Path., U. Tenn., 1946; Fellow Rockefeller Inst. for Medical Research, 1946-1952; *Associate in Pathology, Duke Hospital 1952—*

ALBERT G. SMITH, M.D., *Associate in Pathology.*

M.D., Wash. U., 1947; Rot. Int., St. Luke's Hosp., St. Louis, 1947-1948; Ass't. Res. and Res. in Path., U. Ark. Hosp. and Sch. Med., 1948-1950; Vol. Ass't. Surg. Path., Columbia U. Coll. Phys. and Surg., 1950; Ass't. Res. in Path., Duke, 1950-1951; Res. in Path., Duke, 1951-1952; Instructor in Path., Duke, 1951-1952; *Associate in Pathology, Duke Hospital, 1952—*

JOSHUA L. EDWARDS, B.S., M.D., *Associate in Pathology.*

B.S., U. Florida, 1939; M.D., Tulane, 1943; Rotat. Int., Baptist Hosp., New Orleans, 1943-1944; M.C., A.U.S., 1944-1946; General Practice, 1946-1948, Florida; Res. in Path., Touro Infirmary, New Orleans, 1948-1949; Ass't. Res. in Path., New Eng. Deaconess Hosp., Boston, 1949-1950; Res. in Path., New Eng. Deaconess Hosp., Boston, 1950-1951; *Instructor in Pathology, Duke Hospital, 1951-1952; Associate in Pathology, 1952—*

DORIS W. REED, B.A., *Bacteriologic Assistant in Pathology.*

CARL BISHOP, *Technical Instructor in Pathology.*

J. PHILLIP PICKETT, *Technical Assistant in Pathology.*

### GRADUATE STUDENTS (HOUSE STAFF)

#### RESIDENT AND ASSOCIATE IN PATHOLOGY

OSCAR DUQUE, M.D., U. of Anatioquia, South America, 1947.

#### RESIDENT AND INSTRUCTOR IN PATHOLOGY

BERNARD F. FETTER, A.B., Johns Hopkins, 1941; M.D., Duke, 1944.

#### ASSISTANT RESIDENTS AND INSTRUCTORS IN PATHOLOGY

GEORGE J. RACE, M.D., 1947, Southwestern Med. Coll.

LEON WILLIAMS POWELL, JR., A.B., Duke, 1947; M.D., Johns Hopkins, 1951.

WILLIAM M. BERTON, M.D., U. of California, 1949.

WALTER R. BENSON, M.D., Duke, 1944.

#### INTERNS AND ASSISTANTS IN PATHOLOGY

RUTH H. F. LAU, M.D., Lingnan U., China.

CHARLES WILBUR PARK, A.B., Ohio State U., 1947; M.D., Duke, 1952; *Hanes Fellow in Pathology.*

HANNA C. KUTTEH, M.D., Amer. U. of Beirut, 1947.

*General Pathology.* The course in general pathology is given during the fifth and sixth quarter of the curriculum, following completion

of the prerequisite courses in anatomy, physiology, biochemistry and bacteriology. All the work of the class is done with small groups, each under the guidance of a senior instructor and his junior assistant. The histological aspects of the pathological processes are studied coincidentally with the gross anatomical and physiological alterations of the tissues, thus maintaining a unity of conception of disease. As the various pathological processes and the diseases arising from their elaboration are studied by the student groups, assignments involving reports on the study of groups of cases are made to individual students. The group work and the individual student reports are supplemented by weekly conferences involving the class as a whole and dealing with problems presented by current autopsies and with other problems of general importance. Student collaboration in post-mortem studies is required. Cases thus studied are presented by the student before the class under the direction of the staff; this takes the form of a clinical-pathological conference in which each student plays a particular role.

*Elective Courses.* Special courses in pathology are given to students who have completed the course in general pathology. These courses are available through special arrangement.

*Clinical-Pathological Conference.* A weekly clinical-pathological conference for advanced study is held on Saturdays. It is open to all persons interested, but is designed especially for the Hospital and Medical School Staff. Attendance by all the students is encouraged but is optional. Miscellaneous weekly pathological conferences dealing with current cases under treatment on the various services are held for instruction of the staffs concerned.

*Student Research.* Research facilities are provided for competent students. Those who show an interest in investigative work are given every encouragement and are allowed to work independently or in collaboration with the staff.

*Postgraduate Instruction.* The staff of the department is composed of senior nonresident and junior resident members. The junior resident staff consists of interns, assistant residents, and a resident; all of these are active teachers as well as advanced students of disease. Ample opportunity for the development of a career in the field of pathology is provided for these men.

*Medicolegal Instruction.* The department works in close cooperation with the local coroner's office. Special medicolegal investigation for others are undertaken from time to time. The department collaborates with other departments of the Schools of Medicine and Law in a course in legal medicine that is given in alternate years.

## *Medicine*

EUGENE ANSON STEAD, JR., B.S., M.D., *Florence McAlister Professor of Medicine and Chairman of the Department.*

B.S. and M.D., Emory Univ., 1928 and 1932; Int. Med., Peter Bent Brigham Hosp., 1932-1933; Research Fellow in Med., Harvard, 1933-1934; Int. Surg., Peter Bent Brigham Hosp., 1934-1935; Ass't. Res. in Med., Cincinnati Gen'l. Hosp., 1935-1936; Res. in Med., Cincinnati Gen'l. Hosp., 1936-1937; Instr. in Med., Univ. of Cincinnati, 1935-1937; Res. Phys., Thorndike Memorial Laboratory; Ass't. in Med., Harvard and Boston City Hosp., 1937-1939; Associate in Med., Peter Bent Brigham Hosp., 1939-1942; Instr. in Med., Harvard, 1939-1941; Assoc. in Med., Harvard, 1941-1942; Act. Phys.-in-Chief, Peter Bent Brigham Hosp., 1942; Prof. of Med. and Phys.-in-Chief, Emory Div. of Grady Hosp., 1942-1946; Dean, Emory Univ. Sch. of Med., 1945-1946; *Physician, Duke Hospital, 1947—*

JASPER LAMAR CALLAWAY, B.S., M.D., *Professor of Dermatology and Syphilology.*  
M.D., Duke, 1932; B.S., Alabama, 1935; Ass't. Instr. in Derm. and Syphil., Univ. of Pa. Med. Sch., 1932-1933; Int. and Ass't. Res. in Med., Duke Hosp., 1933-1935; Instr. in Phys. Diag. and Path., Univ. of Alabama, Jan.-July, 1935; Instr. in Derm. and Syphil., Pa. Sch. of Med., 1935-1937; Ass't. Field Physician, U. S. Public Health Serv., Feb.-July, 1937; *Physician and Dermatologist, Duke Hospital, 1937—*

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A.B., Universidad Mayor de San Marcos, 1919; Vol. Ass't. in Path., Friedrich Wilhelm Universität, Berlin, 1920-1921; M.D., Johns Hopkins, 1924; Int. Ass't. Res. in Med., and Ass't. Phys., Johns Hopkins Hosp., 1924-1930; Ass't. Instr. and Assoc. in Medicine, Johns Hopkins Med. Sch., 1925-1930; *Physician, Duke Hospital, 1930—*

JULIAN MEADE RUFFIN, A.B., M.A., M.D., *Professor of Medicine.*

A.B., M.A., and M.D., Virginia, 1921, 1922, and 1926; Int. and Res., Bellevue Hosp., N. Y., 1926-1928; Instr. and Phys. Diag., George Washington Med. Sch., 1928-1930; *Physician, Duke Hospital, 1930—*

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M.D., Heidelberg, 1927; Int. in Med., Univ. Hosp., Heidelberg, 1926-1927; Research Assoc. and Ass't. to Prof. O. Warburg, Kaiser Wilhelm Institut. f. Zellphysiologie, Berlin-Dahlem, 1927-1928 and 1933-1934; Ass't. Phys., Univ. Hosp. of Berlin, 1928-1933; *Physician, Duke Hospital, 1934—*

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A.B., Duke, 1927; M.D., Johns Hopkins, 1931; Int. in Med., Johns Hopkins Hosp., 1931-1932; Ass't. in Path. and Med., Johns Hopkins Med. Sch., 1932-1935; *Physician, Duke Hospital, 1935—*

EDWARD STEWART ORGAIN, M.D., *Professor of Medicine.*

M.D., Virginia, 1930; Int. Ass't. Res. and Res. in Med., Univ. Hosp., Cleveland, 1930-1933; Res. Fellow in Med., assigned to Cardiology, Mass. Gen'l. Hosp., 1933-1934; *Physician, Duke Hospital, 1934—*

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FRANK LIBMAN ENGEL, A.B., M.D., *Associate Professor of Medicine, and Associate in Physiology.*

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B.S., Davidson, 1925; M.A., Davidson, 1926; M.D., Pennsylvania, 1930; Int., Hosp. of Univ. of Pa., 1930-1932; Res. Fellow in Pharm., Pennsylvania, 1932-1935; Instr. in Pharm., 1935-1938; Part-time Staff Phys., Med. and Gastro-Intestinal Clinics, University Hosp., 1935-1938; Lecturer in Pharm., Univ. of N. C. Med. Sch., 1943-1944; *Assistant Physician, Duke Hospital, 1938—*



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M.D., Berlin, 1930; Int., Med., Univ. Hosp., Berlin, 1929-1930; Vol. Ass't. Phys., Univ. Hosp., Berlin, 1930-1933; Research Ass't., Med., Duke, 1947-1952; *Research Associate in Medicine, Duke, 1952—*

## INSTRUCTORS

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B.S., U. N. C., 1936; M.D., Duke, 1938; Intern and Ass't. Res., Med., Duke, 1938-1939; Ass't. Res., Derm. and Syphil., Duke, 1940; Dermatologist, U. S. Army, 1941-1945; Research Fellow, Bellevue Hosp., 1940-1941; Fellow, Derm. and Syphil., Duke, 1945-1946; Private Practice in Dermatology and Syphilology, Greensboro, N. C.; *Assistant Physician, Duke Hospital, 1946—*

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**ALBERT DERWIN COOPER, A.B., M.D., Instructor in Medicine.**

A.B. and M.D., George Washington, 1931 and 1932; Int., Rotat., Garfield Mem. Hosp., Washington, 1931-1932; Int. in Path. and Med., Duke Hospital, 1932-1934; Priv. Prac., Internal Med. and Allergy, 1934-1944; Med. Dir., Durham County Tuberculosis Sanat.; Ass't. Health Officer, Durham City and County Health Departments, Durham, N. C., 1944; *Assistant Physician, Duke Hospital, 1944—*

**SAMUEL L. ELFMON, B.S., M.D., *Instructor in Medicine.***

B.S., Univ. of Richmond, 1932; M.D., Medical College of Virginia, 1935; Intern., Rotating, Highsmith Hospital, Fayetteville, N. C., 1935-1936; Resident, Med., Highsmith Hosp., 1936-1937; Private Practice, 1937-1942; U. S. Army Medical Corps, 1942-1945; Private Practice, Fayetteville, N. C., since December, 1945; *Assistant Physician, Duke Hospital, 1949—*

**WALTER CLEVELAND FITZGERALD, N.C.B.S., M.D., *Instructor in Dermatology and Syphilology.***

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A.B., Duke, 1939; M.D., Duke, 1942; Int. and Res. in Med., Bowman Gray Sch. of Med., 1942-43; U. S. Army Med. Corps, 1943-46; Vet. Res. in Dermatology and Syphilology, Univ. of Michigan, 1946-49; *Assistant Physician, Duke Hospital, 1950—*

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A.B. and M.D., Duke, 1934 and 1937; Intern, Pathology, Baltimore City Hospital, 1937-1938; Intern, Medicine, Baltimore City Hospital, 1938-1939; Assistant Resident in Medicine, Grady Hospital, 1939-1940; Resident in Medicine, Pratt Diagnostic Hospital, Boston, Mass., 1940-1941; Major, U. S. Army Medical Corps, 1942-1946; Private Practice in Internal Medicine, Durham, N. C., 1946; *Assistant Physician, Duke Hospital, 1946—*

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B.S., Davidson College, Davidson, N. C., 1935; M.D., Duke, 1939; Intern in Medicine, Duke, 1939-1940; Assistant Resident in Medicine, Duke, 1940-1941; Assistant Resident in Pathology, Vanderbilt University School of Medicine, 1941-1942; First Assistant Resident in Medicine, Duke, 1942-1943; Resident Physician in Medicine, Duke, 1943-1944; Lt. (MC), USNR, 1944-1946; Private Practice in Internal Medicine, Rocky Mount, N. C., 1946; *Assistant Physician, Duke Hospital, 1947—*

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**EMMETT S. LUPTON, B.S., M.D., *Instructor in Dermatology and Syphilology.***

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A.B., New York Univ., 1941; M.D., Univ. of Rochester, 1949; Int., Ass't. Res., Med., Duke, 1949-1952; *Instructor in Medicine, Duke, 1952—*

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**CALVIN C. MITCHENER, A.B., U. N. C., 1945; M.D., U. N. C., 1949; Int., Lankenau Hosp., Philadelphia, 1949-1950; U. of Pa. Grad. School, Med., 1950-1951; Ass't. Res. and Resident in Dermatology and Syphilology, Duke, 1951—****GERALD P. RODNAN, M.D., L. I. Coll. of Med., 1949; Int., Med., Maimonides Hosp., 1949-1951; Ass't. Res. and Resident in Medicine, Duke, 1951—****THOMAS RUFFIN HOOD, B.S., M.D., *Instructor in Medicine.***

B.S., Duke, 1942; M.D., Duke, 1945; Int., Jefferson Med. School Hosp., 1945-1946; U.S.N., 1946-1948; Res., McGuire Vet. Hosp., Richmond, 1948-1951; *Instructor in Medicine, Duke, 1951—*

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M.D., 1950, Facultad de Medicina de la Universidad de San Carlos de Guatemala; Int., Med., Hosp. San José, Guatemala City, 1948-1949; Int., Hosp. General de Guatemala, 1949-1950; Fellow, Endocrinology, Duke, 1950-1951; Fellow, Med., Duke, 1951-1952; *Instructor in Medicine, Duke, 1952—*

**DAVID M. K. WANG, M.D., *Instructor in Medicine.***

M.D., National Tung-Chi Univ. Med. School, 1948; Int., Sino-American Hosp., Shanghai, 1947-1948; Int., St. Joseph's Hosp., Parkersburg, W. Va., 1948-1949; Res., Med., Holy Family Hosp., Brooklyn, 1950; Gen. Res., Robinson Memorial Hospital, Ravenna, O., 1950; Res. St. Anthony's Hosp., Long Island, 1950-1951; Res., Med., Hartford Memorial Hosp., Hartford, 1951; Res., Pathology, Worcester City Hosp., Worcester, 1952; *Instructor in Medicine, Duke, 1952—*

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JOHN F. BURNUM, B.S., M.D., Harvard, 1950; Int. and Ass't. Res., Med., New York Hosp., 1950-1952; Fellow in Medicine, Duke, 1952—

GEORGE W. CRANE, A.B., DePauw U., 1942; M.D., Northwestern U., 1945; Int., Dermatol. and Syphilol., U.S.P.H.S., 1946-1948; Fellow in Dermatology and Syphilology, Duke, 1949—

LADD W. HAMRICK, JR., B.S., Wake Forest, 1944; M.D., Bowman Gray, 1946; Int., Med., Barnes Hosp., 1946-1947; Ass't. Res., Pathology, Bowman Gray, 1947-1948; U.S.A.M.D., 1948-1950; Ass't. Res., Med., Duke, 1950-1952; Fellow in Medicine, Duke, 1952—

ROBERT F. KIBLER, B.S., Duke, 1945; M.D., Duke, 1948; Fellow, Neurology, Duke, 1949; Int., Med., Duke, 1949-1950; Ass't. Res., Med., Grady, 1950-1951; Ass't. Res., Med., Duke, 1951-1952; Fellow in Medicine, Duke, 1952—

HENRY D. MCINTOSH, B.S., Davidson, 1943; M.D., U. of Pa., 1950; Int., Med., Duke, 1950-1951; Ass't. Res., Med., Lawson V.A. Hosp., 1951-1952; Fellow in Medicine, Duke, 1952—

GORDON R. MCKINNEY, A.B., DePauw U., 1946; M.S., Notre Dame, 1948; Ph.D., Duke, 1951; Lecturer in Pharmacology, 1952—; Fellow in Medicine, 1951—

EDWARD H. SCHERR, A.B., Wash. and Lee, 1943; M.D., Med. Coll. of Va., 1946; Intern, rotating, Gallinger Hosp., 1946-1947; U.S.A.M.C., 1947-1949; Ass't. Res., Med., Gallinger Hosp., 1949-1950; Res., V.A. Hosp., Washington, D. C., 1950-1951; Chief Res., Med., Gallinger Hosp., 1951-1952; Fellow in Medicine, Duke, 1952—

EMILE E. WERKE, JR., A.B., Williams Coll. 1943; M.D., P. of Cincinnati Coll. of Med., 1946; Int. and Ass't. Res., Med., Cincinnati General, 1946-1952; Fellow in Medicine, Duke, 1952—

JOHN W. WILSON, JR., M.D., Duke, 1949; U. S. N., 1949-1952; Fellow in Medicine, Duke, 1952—

### GRADUATE STUDENTS (HOUSE STAFF)

Assistant Residents and Assistants in Medicine

MARY CAROLINE BECKER, A.B., Vanderbilt, 1946; M.D., Hopkins, 1950; 1950—

ROBERT BURCH, B.S., Tulane, 1947; M.D., Tulane, 1952; Duke, 1952—

ELIZABETH DECKER, A.B., U. of Richmond, 1947; M.D., Cornell, 1951; Duke, 1951—

PAUL FILLMORE, M.D., Duke, 1947; Int. and Ass't. Res., Med., Duke, 1947-1949; A.E.C.C., Japan, 1949-1951; Fellow, Med., Duke, 1951-1952; Med., Duke, 1952—

THOMAS FITZ, M.D., Duke, 1950; Int., Med., Duke, 1950-1951; Ass't. Res., Med., Lawson V.A. Hosp., 1951-1952; Duke, Med., 1952—

BEN FRIEDMAN, M.D., U. of Cincinnati, 1948; Ass't. Res., Med., 1950; U.S.A.F. (M.C.), 1950-1952; Duke, Med., 1952—

NORMAN F. GARRETT, M.D., Duke, 1950; Int., Med., Duke, 1950; Int., rotating, Cincinnati Gen'l. Hosp., 1950-1951; Res., Pathology, Cincinnati Gen'l. Hosp., 1951-1952; Med., Duke, 1952—

- CARL A. JAEGER, M.D., Duke, 1950; Intern, Duke, 1950-1951; Ass't. Resident, Medicine, Duke, 1951-1951—
- HENRY JOHNSON, B.S., Va. M. Inst., 1947; M.D., Emory, 1951; Int., Med., Grady, 1951-1952; Med., Duke, 1952—
- DAVID M. KIPNIS, A.B., Hopkins, 1945; M.A., Hopkins, 1947; M.D., U. of Md., 1951; Int., Med., Hopkins, 1951-1952; Med., Duke, 1952—
- WILLIAM W. LACY, B.S., Davidson, 1947; M.D., Harvard, 1951; Int., Med., Hopkins, 1951-1952; Med., Duke, 1952—
- LEONARD M. LISTER, M.D., U. of Md., 1951; Int., Med., Barnes, 1951-1952; Duke, Med., 1952—
- FRANCIS L. MERRITT, M.D., Yale, 1951; Int., Surg., Duke, 1951-1952; Med. (Neurology), Duke, 1952—
- DAVID H. REYNOLDS, M.D., Duke, 1951; Int., Grady, 1951-1952; Med. (Neurology), Duke, 1952—
- JACK G. ROBBINS, M.D., Duke, 1948; Int., Hohnemann Hosp., Philadelphia, 1948-1949; Int., Med., 1949-1950; Ass't. Res., Med. (Dermatology and Syphilology), 1950-1951; U. S. A., 1951-1952; Med. (Dermatology and Syphilology), Duke, 1952—
- HUGH K. SEALY, M.D., Duke, 1947; Int., rotating, Macon Hosp., 1947-1948; Int., Med., Duke, 1948-1949; Ass't. Res., Med., Duke, 1949-1950; U.S.A. (M.C.), 1950-1952; Ass't. Res., Med., Duke, 1952—
- SETRAG A. ZACARIAN, B.S., Tufts, 1943; M.D., Boston U. Med. School, 1947; Int., rotating, Beverly Hosp., Mass., 1947-1948; Ass't. Res., Med., Malden Hosp., Mass., 1948-1949; Teaching Fellow, Pathology, Tufts, 1949-1950; U.S.N., 1950-1952; Ass't. Res., Med. (Derm. and Syphil.), Duke, 1952—

#### INTERNS

(1952-1953)

- PHIN COHEN, A.B., Duke, 1950; M.D., U. of Md., 1952; 1952—
- THOMAS COCKEY, A.B., Hopkins, 1948; M.D., Hopkins, 1952; 1952—
- CLIFTON DAVENPORT, M.D., Duke, 1951; 1952—
- ELIZABETH JACKSON, B.S., Duke, 1948; M.D., Duke, 1952; 1952—
- RUTH KIMMELSTIEL, B.A., Randolph-Macon Woman's College, 1948; M.D., Duke, 1951; 1952—
- THOMAS LANGLEY, M.D., Duke, 1951; 1952—
- HERBERT LOURIE, B.S., Univ. of So. Carolina; M.D., Duke, 1951; 1952—
- FAIRFAX MONTAGUE, B.S., Emory, 1948; M.D., Emory, 1952; 1952—
- JOHN MORLEDGE, A.B., U. of Okla., 1948; M.D., Western Reserve, 1952; 1952—
- CLARK G. REED, A.B., San Jose State College, 1948; M.D., Duke, 1951; 1952—
- OSCAR REINMUTH, A.B., U. of Texas, 1948; M.D., Duke, 1952; 1952—
- MILLARD W. WESTER, JR., M.D., Duke, 1952; 1952—
- JEFFERSON WHITE, B.S., Emory, 1949; M.D., Emory, 1952; 1952—
- TIFFANY WILLIAMS, A.B., U. of Va., 1948; M.D., Hopkins, 1952; 1952—

*Introduction to Clinical Medicine and Physical Diagnosis.* This course is initiated, in the fifth quarter, by introductory lectures, case discussions, and instruction in the methods of physical examination and history taking. Early in the course students begin work at the bedside in the examination of selected patients. Emphasis throughout

is placed on instruction individually or in small groups. The interpretation and pathogenesis of all abnormal findings are stressed. The Departments of Neurology and Psychiatry provide training in neurological and mental examinations. This plan of teaching continues in the sixth quarter, when, in addition, instruction in the more specialized methods of examination is provided through the co-operation of the Departments of Surgery, Obstetrics, Gynecology, and Radiology.

*Clinical Microscopy* is given in the fifth quarter. The course includes the essentials of hematology and the examination of fresh material, such as urine, stools, spinal fluids, sputum, transudates, and exudates. The most important parasites of man are studied by the use of fresh and museum material. Second-year and senior students are given opportunities for special work and for investigation. This course is supplemented in the Junior and Senior years by Hematology Conferences, which are held weekly, and Ward Rounds, which are held three times weekly.

*Cutaneous Medicine and Syphilology.* Instruction consisting of lectures, seminars and study and treatment of patients in the out-patient clinics and on the wards is offered each quarter to Junior and Senior students. In addition, an elective course consisting of advanced teaching in clinical dermatology and syphilology is offered to a limited number of students.

*Junior and Senior Medicine.* The medical students are assigned to the medical wards as clinical clerks for one half of their time, and to the medical out-patient department where they examine patients for the other half of their time.

## Psychiatry

HANS LOWENBACH, M.D., *Associate Professor of Psychiatry and Acting Chairman of the Department.*

M.D., Hamburg, 1930; Int., Med. Clinic, 1929-1930; and Ass't. Physiolog. Inst., Freiburg, i.B., 1930-1932; Ass't. Med. Clinic, Köln, 1932-1933; Ass't. Kaiser Wilhelm Inst. f. Hirnforschung, Physiolog. Abt., Berlin, 1933-1935; Fellow, Nansen Fund, Oslo, Norway, 1935-1936; Ship's Surg., Whaling Expeditions, 1936-1939; Res. Ass't. in Psych., Johns Hopkins Med. Sch., 1939-1940; Lt. Col., MC, AUS, Theaterneuropsychiatrist, EUCOM, 1949-1951; *Associate Psychiatrist, Duke Hospital, 1940—*

LESLIE BENJAMIN HOHMAN, A.B., M.D., *Professor of Psychiatry.*

A.B., Univ. of Missouri, 1912; M.D., Johns Hopkins, 1917; Int., Ass't. Res. and Res., Henry Phipps Psychiatric Clinic, Johns Hopkins Hospital, 1917-1922; U. S. Army; 1917-1919; Priv. Practice, 1922-1943; Associate in Psych., Johns Hopkins, 1922-1924; Lecturer in Psych., Univ. of Maryland, 1939-1943; Comdr., Med. Corps, U. S. Navy, 1943-1946; Ass't. Prof. of Psych., Johns Hopkins, 1944-1946; *Psychiatrist, Duke Hospital, 1946—*

BINGHAM DAI, A.B., M.A., Ph.D., *Professor of Mental Hygiene.*

A.B., St. John's, 1923; M.A. and Ph.D., Chicago, 1932 and 1935; Fellow in Soc. Sc., Yale, 1932-1933; Instit. for Psychoanalysis, 1933-1935; Fell., Assoc. and Ass't. Prof. in Med. Psych., Peiping Union Med. Coll., China, 1935-1939; Lecturer in Soc., Tsing Hua, 1936-1937; Lecturer in Soc. Psych., Fisk, 1939-1942; *1943—*

R. CHARMAN CARROLL, R.N., A.B., M.D., *Assistant Professor of Psychiatry.*

R.N., Highland Hosp., 1930; A.B., Duke, 1935; M.D., Colorado, 1939; Int. in Ped., 1939-1940, and Res. in Psychiatry, Duke Hospital, 1940-1942; Assoc. in Psych., Highland Hospital, Asheville, N. C., 1942-1944; Assistant Psychiatrist, Duke Hospital, 1944; Med. Dir., Highland Hosp., Asheville, 1948—; Associate in Psychiatry, Duke Hospital, 1944-1952; *Assistant Psychiatrist, Duke Hospital, July, 1952—*

**ROBERT BURKE SUITT, M.D., Assistant Professor of Psychiatry.**

M.D., St. Louis, 1932; Int., Neuropsychiatric Serv., Alexian Bros. Hosp., St. Louis, 1931-1932; Int., St. Louis City Hosp., 1932-1933; Res. in Psychiatry, Highland Hosp., Asheville, N. C., 1933-1938; Ass't. in Psychiatry, Johns Hopkins Med. Sch., 1938-1940; Ass't. Dispen. Psych., Johns Hopkins Hosp., 1939-1940; *Assistant Psychiatrist, Duke Hospital, 1940—*

**LOUIS DAVID COHEN, B.S., M.A., Ph.D., Assistant Professor of Clinical Psychology, Assistant Professor of Psychology.**

B.S., Brooklyn, 1934; M.A., Columbia, 1936; Ph.D., Duke, 1949; Grad. Student, Psychology, N. Y. University, 1938-1940; Lt. Col., U. S. Army, 1942-1946; Assoc. in Clinical Psychology, Duke, 1946-1949; Ass't. Prof. of Psychology, Duke, 1949; *Assistant Professor of Clinical Psychology, Duke Hospital, 1946—*

**ROBERT LAWRENCE CRAIG, B.A., M.D., Associate in Psychiatry.**

B.A., Amherst College, 1931; M.D., Johns Hopkins, 1935; Int., Med., Baltimore City Hosps., 1935-1936; Ass't. Res., Med., Baltimore City Hosps., 1936-1937; Ass't. Res., Neurology, Baltimore City Hosps., 1937-1938; Res., Neurology, Duke, 1938-1939; Res., Psychiatry, V.A. Mental Hygiene Clinic, Duke, 1948; Instructor in Neurology, Duke, and Ass't. Neurologist, Duke, 1939-1942 and 1946-1947; Instructor in Psychiatry, Duke Hosp., 1949; Associate Med. Dir., Highland Hosp., Asheville, N. C., 1949; *Associate in Psychiatry, Duke Hospital, 1948—*

**MARSHALL L. FISHER, B.S., M.D., Associate in Psychiatry.**

B.S., Univ. of Illinois, 1932; M.D., Univ. of Ill. Coll. of Med., 1935; Int., Rotating, County Hosp., Chicago, 1936-1937; Res. and Assoc. Physician Psych., Mateno State Hosp., Mateno, Ill., 1937-1938; Private Practice, 1938-1942; Residency in Psych., Veterans Hospital, Palo Alto, Calif., and Langley Porter Clinic, San Francisco, Calif.; U. S. Army, Chief NP Section, Station Hosp., Camp Cooke, Calif.; Chief NP Section, 318th Station Hospital ETO; Chief NP Section 124th Gen. Hosp., ETO, 1942-1946; Private Practice one year with part-time appointment in Psychiatry, Regional Office, San Diego, Calif.; Director Psychiatric Education, Veterans Hospital, Roanoke, Va., since March 1, 1949; *Associate in Psychiatry, Duke Hospital, 1949—*

**STEPHEN ARNOLD GINN, A.B., M.D., Associate in Psychiatry.**

A.B., Duke, 1936; M.D., Duke, 1941; Int., Rotating, St. Josephs, Atlanta, 1941-42; Med. Officer, U. S. Navy, 1942-46; Res. Ped., Eggleston Hosp., Atlanta, 1946-47; Res. Ped., Duke, 1947-49; Child Psych., Bradley Home, E. Providence, R. I., 1948-49; Res., Psych., Duke & N. C. State Hosp. at Raleigh, 1949-50; Instructor in Psychiatry, Duke, 1950-52; Physician in Charge, Child Guidance Clinic, Duke, 1950—; *Associate in Psychiatry, Duke Hospital, July, 1952—*

**JEWETT GOLDSMITH, A.B., M.D., Associate in Psychiatry.**

A.B., Johns Hopkins Univ., 1938; M.D., Univ. of Maryland School of Med., 1942; Int., Kings County Hosp., Brooklyn, N. Y., 1942-1943; Lieut., U. S. Navy, 1943-1946; V.A. Senior Res. in Psych., Duke Hospital, 1946-1948; Instructor in Psychiatry, Duke Hospital, Jan. 1949-June 1949; Physician-in-charge, Psychiatric O.P.C., Duke Hospital, July 1950; *Associate in Psychiatry, Duke Hospital, July 1949—*

**VERNON KINROSS-WRIGHT, B.A., M.A., B.M., B.S., M.R.C.S., L.R.C.P., D.P.M., Associate in Psychiatry.**

B.A., Oxford, 1942; M.A., Oxford, 1946; B.M., B.S., Oxford, 1945; M.R.C.S., L.R.C.P., London, 1944; D.P.M., London, 1947; Int., St. Thomas's Hosp. (Surrey branch); House Physician, Ass't. Res., General Hospital, Ipswich, England, 1945; Res., St. Andrews Hospital, Northampton, Psych., 1946; Grad. work, Psych., Maudsley Hosp., London, 1945, 1946 and 1948; Grad. work, Neurology, Maiden Vale Hosp., London, 1945-1946; Ass't. Psychiatrist, St. Andrews Hosp., Northampton, England, 1947-1948; Director, Charlotte Mental Hygiene Clinic, June, 1948-Oct., 1950; Director, Durham Child Guidance Clinic, Nov., 1950; *Associate in Psychiatry, Duke Hospital, 1949—*

**ALBERT E. RAUH, M.D., Associate in Neurology; Chief, Neurological Service, V. A. Hospital, Roanoke, Va.**

M.D., Harvard Med. Sch., 1935; Mass. Gen. Hosp., Ped. Int., 1936-1937; Fellow, Anatomy, Harvard, 1935 and 1937; Boston City Hosp., Neurology, 1937-1938; Fellow in Psych., Hartford Retreat, 1938-1940; Res. Psych., N. Y. St. Psych. Inst., 1940-1941; U. S. Army, 1941-1946; Sr. Psych., Rockland St. Hosp., 1945-1946; Ch. Neurol., U.S.V.A. Hosp., Lyons, N. J., 1946-1949 (NP Hosp.); V. A. Hosp., Roanoke, Va., Chief, Neurology, 1949; *Associate in Psychiatry, Duke Hospital, 1949—*

**LEONARD J. RAVITZ, B.S., M.S., M.D., Associate in Psychiatry.**

B.S., Western Reserve Univ.; Adelbert College, Cleveland, O., June 1944; M.D., Wayne Univ. College of Med., Detroit, Mich., March 1946; M.S., Yale University, New Haven, Conn., June 1950; Research Ass't., EEG Dept., Harper Hospital, Detroit, Mich., 1943-1946; Study of Hypnoanalysis, Wayne County General Hosp. (Eloise), Eloise, Mich., 1945-1946; Intern., St. Elizabeths and Gallinger Municipal Hosps., Washington, D. C., 1946-1947; Ass't. Res., Psychiatry, Grace-New Haven Community Hospital, New Haven Unit, University Service, New Haven, Conn., 1947-1949; Assistant, Psychiatry and Mental Hygiene, Yale Univ. School of Medicine, 1947-1949; Research Associate, Section of Neuro-Anatomy, Yale Univ. School of Medicine, 1949—; Senior resident, Psychiatry, Duke Hospital and Veterans Administration Hospital, Roanoke, Va., 1950-1951; Instructor in Psychiatry, Duke Hospital, September 1950-1952; *Associate in Psychiatry, Duke Hospital, July 1952—*



GEORGE A. SILVER, B.S., M.D., *Associate in Psychiatry.*

B.S., Guilford, 1934; M.D., Duke, 1938; Int., Ped., Duke, 1937-1938; Rotat. Int., St. Francis Hosp., Trenton, N. J., 1938-1939; Int., Obs., Marg. Hague Hosp., Jersey City, N. J., 1939; Gen. Practice, N. J., 1939-1941; Lt. Col. (Flight Surgeon), U. S. Army, March 1941-1946; Veteran Resident in Psychiatry, Duke Hospital, 1946-1947; Instructor in Psychiatry, Duke Hospital, 1948-June 1949; *Associate in Psychiatry, Duke Hospital, 1949—*

WILLIAM EDGAR WILKINSON, B.S., M.D., *Professor of Military Science and Tactics; Associate in Psychiatry.*

B.S., Davidson, 1928; M.D., Duke, 1932; Int., Surgery, Duke, 1932-1933; Ass't. Res., Pathology, Duke, 1933-1934; Ass't. Res., Surgery, Duke, 1934-1935; Med. Officer, U. S. Army, 1935; Prof. of Military Science and Tactics, Duke Hosp., 1949; *Associate in Psychiatry, Duke Hospital, 1949—*

WILLIAM P. WILSON, B.S., M.D., *Associate in Psychiatry, Chief Resident in Psychiatry.*

B.S., Duke, 1943; M.D., Duke, 1947; Int., Rotating, Gorgas Hosp., Ancon, C.Z., 1947-1948; Staff Physician, State Hosp., Raleigh, 1948-1949; Instructor in Psychiatry, Duke Hospital, 1949-52; *Associate in Psychiatry, Duke Hospital, July, 1952—*

DAVID A. YOUNG, A.B., M.D., *Lecturer in Psychiatry.*

A.B., North Carolina, 1928; M.D., Harvard, 1931; Int. Med., Mass. Gen. Hosp., 1931-1933; Int. and Res. in Neurol., Bellevue Hosp., 1933; Int., Psych., Worcester State Hosp., 1934; Res., Psych., McLean Hosp., Waverly, Mass., 1934; Senior Physician, McLean Hosp., 1936-1941; Ass't. Res. Psych., Duke, 1935; Res. in Psych., Mass. Gen. Hosp., 1935-1936; Lecturer in Medicine, Univ. of N. C., 1946; *1946—*

TANASH H. ATOYNATAN, P.C.N., M.D., *Instructor in Psychiatry, Assistant Resident in Psychiatry.*

P.C.N., Univ. of Istanbul, 1937; M.D., Univ. of Istanbul, 1944; 1st Lt., Medical Corps of Turkish Army, 1944-1947; Private General Practice, American Clinic, Talas, Kaysevi, Turkey, 1947-1948; Dix Hill State Hospital, Raleigh, N. C., 1948-August, 1949; Graduate Student in Neuropsychiatry, Duke Hospital, August, 1949-August, 1950; Fellow in Electroencephalography, Duke Hospital, August, 1950-October, 1951; Assistant Resident, Psychiatry, Duke Hospital, October, 1951—; *Instructor in Psychiatry, Duke Hospital, July, 1952—*

MARIE BALDWIN, A.B., M.D., *Instructor in Psychiatry.*

A.B., Erskine College, 1924; M.D., South Carolina State Med. Coll., 1929; Int., Gen., Parkview Hosp., Rocky Mount, N. C., 1929-1930; Int., Ped., Buffalo Children's Hosp., Buffalo, N. Y., 1930-1931; Ass't. Res., Psych., Duke, 1944-1945; Res., Med., Overlook Hosp., Summit, N. J., 1931-1932; Res., Psych., Duke, 1945-1946; Fellowship, Charlotte Mental Hygiene Clinic, 1945-1946; Senior Ass't., Highland Hospital, Asheville, N. C., June 1, 1946-January 1, 1949; Associate Psychiatrist, Highland Hospital, Asheville, N. C., January 1, 1949; *Instructor in Psychiatry, Duke Hospital, 1949—*

D. K. ADAMS, *Consultant. Professor of Psychology.*

JOHN GILLIN, *Consultant. Professor of Anthropology, Univ. of N. C.*

WESTON LABARRE, *Consultant. Associate Professor of Anthropology.*

FLORRIE GARRETT, *Psychologist, Child Guidance Clinic.*

MARJORIE M. HOBBS, *Psychologist, Child Guidance Clinic.*

SANFORD GOLDSTONE, *Psychologist.*

PHILIP E. KUEZANSKY, *Psychologist.*

MURRAY HALFOND, *Medical Speech Pathologist.*

#### GRADUATE STUDENTS (HOUSE STAFF)

LEONARD MILTON ROTHSTEIN, A.B., Johns Hopkins Univ., 1944; M.B., Chicago Med. Sch., 1947; M.D., Chicago Med. Sch., 1948.

JACK CONRAD WESTMAN, B.S., Univ. of Michigan, 1949; M.D., Univ. of Michigan, 1952.

Instruction starts in the first year with an introductory course in psychiatry. In the second year, methods of psychiatric examination and a general presentation of the main reaction types are given. Each third-year student has a two-week clerkship on the psychiatric ward, and in the fourth year patients are worked up in the out-patient clinic

for a period of three and half weeks. A psychiatric amphitheater clinic is held weekly throughout the year for third- and fourth-year students. Elective courses in psychiatric methods of research, physiological aspects of psychiatry, psychosomatic medicine, psychoanalysis in medicine, and principles of psychotherapy are offered to fourth-year students. Students are invited to attend the staff case conferences, the psychosomatic conferences and the conferences on psychiatric disorders of childhood. Emphasis is placed upon the close relationship of psychiatry to other branches of medicine and the social sciences. Internships are available in psychiatry with the expectation that they will lead to progressively greater interest in psychiatric problems encountered on all other services in the Hospital. Graduate training in psychiatry meeting the requirements of the American Board of Psychiatry and Neurology is given. Regular courses in conjunction with the Veterans Administration training program are available. Investigation is encouraged.

## Surgery

**DERYL HART, A.B., A.M., M.D.,** *Professor of Surgery and Chairman of the Department.*

A.B. and A.M., Emory, 1916 and 1917; M.D., Johns Hopkins, 1921; Int. in Surg., Ass't. Res. in Surg. Path., Ass't. Res. and Res. in Surg., and Assoc. Surg., Johns Hopkins Hosp., 1921-1930; Ass't. in Path., Instr., and Assoc. in Surg., Johns Hopkins Med. Sch., 1922-1930; *Surgeon, Duke Hospital, 1930—*

**CLARENCE ELLSWORTH GARDNER, JR., A.B. D.Sc., M.D.,** *Professor of Surgery.*

A.B., D.Sc., Wittenberg, 1924, 1951; M.D., Johns Hopkins, 1928; Int. and Ass't. Res., Johns Hopkins Hosp., 1928-1930; Ass't. in Surg., Johns Hopkins Med. Sch., 1929-1930; Res. in Surgery and Associate Surgeon, Duke Hosp., 1930-1942; Col., Chief of Surg. Serv., 65th (U. S.) Gen. Hosp., 1942-1945; *Associate Surgeon, Duke Hospital 1945—*

**KEITH SANFORD GRIMSON, B.A., B.S., M.D.,** *Professor of Surgery.*

B.A. and B.S., North Dakota, 1930 and 1931; M.D., Rush Med. Coll., 1933; Int., Presbyterian Hosp., Chicago, 1933-1935; Ass't. Res. and Instr. in Surg., Chicago, 1935-1942; *Assistant Surgeon, Duke Hospital, 1942—*

**KENNETH LEROY PICKRELL, M.D.,** *Professor of Plastic Surgery.*

M.D., Johns Hopkins, 1935; Int., Ass't. Res. and Res. in Surg., Johns Hopkins Hosp., 1935-1944; *Assistant Surgeon, Duke Hospital, 1944—*

**WILL CAMP SEALY, B.S., M.D.,** *Associate Professor of Surgery, in Charge of Division of Thoracic Surgery.*

B.S. and M.D., Emory Univ., 1933 and 1936; Int. Surg., Ass't. Res. and Res., Duke Hosp., 1936-1942; Capt., Med. Corps, U. S. Army, 1942-1944; Chief, Surg. Service, 124th Gen. Hosp. and Lawson Gen. Hosp., 1944-1946; *Assistant Surgeon, Duke Hospital, 1946—*

**JOSEPH W. BEARD, B.S., M.D.,** *Professor of Surgery in Charge of Experimental Surgery, and Associate Professor of Virology.*

B.S., Chicago, 1926; M.D., Vanderbilt, 1929; Ass't. and Instr. in Surg., Vanderbilt Univ. Med. Sch., 1930-1932; Int., Ass't. Res., and Res. in Surg., Vanderbilt Univ. Hosp., 1929-1932; Ass't. in Path. and Bact., Rockefeller Instit. for Med. Research, New York City, 1932-1935; Assoc. in Path. and Bact., Rockefeller Instit. for Med. Research, Princeton, 1935-1937; *Assistant Surgeon, Duke Hospital, 1937—*

**HERMAN MAX SCHIEBEL, A.B., M.D.,** *Associate in Surgery.*

A.B. and M.D., Johns Hopkins, 1929 and 1933; Int., Ass't. Res. and Res. in Surg., Duke Hosp., 1933-1939; Surgeon-in-Chief, Lincoln Hosp., 1940—; Attending Surgeon, Watts Hosp., 1940—; *Assistant Surgeon, Duke Hospital, 1939—*

**BARNES WOODHALL, A.B., M.D.,** *Professor of Neurosurgery.*

A.B., Williams, 1926; M.D., Johns Hopkins, 1930; Int., Ass't. and Res. in Surg., Johns Hopkins Hosp., 1930-1937; Ass't. and Instr. in Surg., Johns Hopkins Med. Sch., 1931-1937; Neurosurgeon, Duke Hosp., 1937-1943; Lt. Col., Med. Corps, U. S. Army, 1943-1945; *Neurosurgeon, Duke Hospital, 1945—*



**GUY LEARY ODOM, M.D., *Professor of Neurosurgery.***

M.D., Tulane, 1933; Int., Rotat., East Louisiana State Hosp., 1934-1937; Res. Fellow, Path. Fellow, Int., and Res. in Neuro. and Neurosurg., Montreal Neurol. Instit., 1937-1942; Clin. Instr. in Neurosurg., L. S. U. Med. Sch., 1942-1943; *Assistant Neurosurgeon, Duke Hospital, 1943—*

**WILLIAM BANKS ANDERSON, A.B., M.D., *Professor of Ophthalmology.***

A.B., North Carolina, 1920; M.D., Johns Hopkins, 1924; Int., Union Mem. Hosp., Balto., 1924-1925; Int., Mass. Eye and Ear Infirmary, 1925-1927; *Ophthalmologist, Duke Hospital, 1930—*

**WATT WEEMS EAGLE, A.B., M.D., *Professor of Otolaryngology.***

A.B., North Carolina, 1918; Grad. Stud., North Carolina, 1918-1919; M.D., Johns Hopkins, 1925; Int., Church Home and Infirmary, Baltimore, 1925-1926; Int., Ass't. Res. and Res. in Laryngol., Johns Hopkins Hosp., 1926-1929; Ass't. and Instr. in Laryngol., Johns Hopkins Med. Sch., 1927-1930; *Otolaryngologist, Duke Hospital, 1930—*

**RALPH A. ARNOLD, B.A., M.D., *Associate Professor of Otolaryngology and Ophthalmology.***

B.A., Rochester, 1932; M.D., Buffalo, 1936; Int. in Stud. Health, and Int., Ass't. Res. and Res. in Otolaryngology, Duke Hosp., 1937-1941; Assoc. in Oto. and Ophthal., 1941-1942; Major, MC, AUS, 1942-1946; *Assistant Otolaryngologist and Ophthalmologist, Duke Hospital, 1946—*

**FREDERICK W. STOCKER, M.D., *Associate Professor of Ophthalmology.***

M.D., Bern, 1918; Vol. Ass't., Univ. Eye Clinic, Munich, 1916-1917; Int. and Res., Univ. of Bern Eye Clinic, 1918-1921; Eye Path., Instit. of Ophth., Presbyterian Hosp., New York, 1941-1942; *1943—*

**GEORGE BURTON FERGUSON, M.D., M.Sc. (Med.), *Associate in Bronchoscopy.***

M.D., Jefferson, 1932; M.Sc. (Med.), Pennsylvania, 1936; Res. Phys., Jefferson Med. Coll. Hosp., 1932-1934; *Bronchoscopist, Duke Hospital, 1937—*

**LENOX DIAL BAKER, M.D., *Professor of Orthopaedic Surgery.***

M.D., Duke, 1933; Int. in Orth. Surg. and in Gen'l. Surg.; Ass't. Res. in Orth. Surg., and Res. in Orth., Johns Hopkins Hosp., 1933-1937; Res., Children's Hosp. Sch., 1936; Ass't. and Instr., Orth. Surg., Johns Hopkins Med. Sch., 1935-1937; *Orthopaedist, Duke Hospital, 1937—*

**RICHARD BEVERLY RANEY, A.B., M.D., *Lecturer in Orthopaedics.***

A.B., North Carolina, 1926; M.D., Harvard, 1930; Int. in Surg., Surg. Pathologist, Ass't. Res. and Assoc. Res. in Surg., Strong Mem. Hosp., 1930-1934; Res. in Orth. and Assistant Orthopaedist, *Duke Hospital, 1934-1952—*

**EVERETT I. BUGG, JR., M.D., *Instructor in Orthopaedics.***

B.S., Duke, 1935; M.D., Johns Hopkins, 1937; Int. in Surg., Duke Hosp., 1937-1938; Ass't. Res. and Res. in Orthop., Johns Hopkins Hosp., 1938-1941; *1946—*

**JOHN GLASSON, A.B., M.D., *Instructor in Orthopaedics.***

A.B., Duke, 1939; M.D., Cornell, 1943; Int. in Surg., N. Y. Hosp., 1943; U. S. Army Med. Corps, 1944-46; Ext. in Path., N. Y. Hosp., 1946-47; Ass't. Res. in Surg., N. Y. Hosp., 1947-49; Ass't. Res. in Orthopaedics, N. Y. Hosp., 1949-50; Ass't. Res. and Res. in Orthopaedics, Shriner's Hosp., Greenville, S. C., 1950-51; *1952—*

**JULIAN E. JACOBS, M.D., *Lecturer in Orthopaedics.***

M.D., Nebraska, 1935; Ass't. Res. and Res., Orthop., Duke, 1936-38; Instr., Orthop., Univ. Sou. Calif., 1938-39; Res., Children's Hosp., Los Angeles, Calif., 1938-39; Orthopaedist, Charlotte Mem. Hosp., Mercy Hosp., Good Samaritan Hosp., Charlotte, N. C., 1939—; *1951—*

**CHARLES EDWIN IRWIN, M.D., *Lecturer in Orthopaedics.***

M.D., Emory, 1932; Int., Piedmont Hosp., 1932-1933; Res., Georgia Warm Springs Foundation, 1933-1936; *1946—*

**OSCAR LEE MILLER, M.D., *Lecturer in Orthopaedics.***

M.D., Emory, 1912; Int. and Res., Piedmont Hosp., 1912-1914; Res., Scottish Rite Hosp. for Crippled Children, 1915-1917; U. S. Army, 1917-1919; Assoc. Prof. of Orthopaedic Surgery, Emory Univ., 1919-1921; Chief Surgeon, N. C. Orthopaedic Hosp., 1921-1932; Consulting Orthopaedic Surgeon, N. C. Orthopaedic Hospital, 1932; Attending Orthopaedic Surgeon, Charlotte Sanatorium, Mercy Hosp., 1923-1941; Chief, Div. of Orthopaedic Surgery, Charlotte Mem. Hosp., 1941; *1946—*

**W. M. ROBERTS, *Lecturer in Orthopaedics.*****FRANK H. STELLING, M.D., *Lecturer in Orthopaedics.*****J. LEONARD GOLDNER, A.B., B.S., M.D., *Assistant Professor of Orthopaedics.***

A.B., Minn., 1939; B.S., M.D., Nebraska, 1941, 1943; Int. and Res. Surg., Univ. Hosp., Nebraska, 1943-1944; Ass't. Res., Orthop., Duke, 1946-1947; Ass't. Res. and Staff Member, Orthop., Warm Springs Foundation, 1947-1948; Ass't. Res. and Res., Orthop., Duke, 1949-1950; *1950—*

**ROBERT L. BENNETT, M.D., Lecturer in Physical Medicine.**

B.S., U. of Pittsburgh, 1934; M.D., 1936; M.S. in Physical Med., Mayo Foundation, U. of Minnesota, 1941; Int., Mercy Hosp., 1936-1937; Fellow in Phys. Med., Mayo Foundation, 1937-1940; Ass't. Phys. Med., Mayo Clinic, 1939-1940; Ass't. Prof. Phys. Med., Georgia Warm Springs Foundation; Dir. Post-Graduate School, Georgia Warm Springs Foundation, 1941-1946; 1946—

**EDWIN PASCAL ALYEA, S.B., M.D., Professor of Urology.**

S.B., Princeton, 1919; M.D., Johns Hopkins, 1923; Int. in Med., Int. and Ass't. Res. in Surg.; Ass't. Res. and Res. in Urol., Johns Hopkins Hosp., 1923-1929; Ass't. and Instr. in Surg., and Instr. in Urol., Johns Hopkins Med. Sch., 1925-1929; *Urologist, Duke Hospital, 1930—*

**JOHN ESSARY DEES, B.S., M.D., Associate Professor of Urology.**

B.S. and M.D., Virginia, 1930 and 1933; Int. and Ass't. Res., Johns Hopkins Hosp., 1933-1937, and Res. in Urol., Ancker Hosp., 1937-1938, and Johns Hopkins Hosp., 1938-1939; *Assistant Urologist, Duke Hospital, 1939—*

**LOUIS CARROLL ROBERTS, B.S., M.D., Instructor in Urology.**

B.S., Davidson, 1930; M.D., Duke, 1933; Int. in Surg., Ass't. Res. in Path., Ass't. Res., and Res. in Urol., Duke Hosp., 1933-1940; Major, Med. Corps, U. S. Army, 1941-1945; *Assistant Urologist, Duke Hospital, 1940—*

**THEODORE W. ATWOOD, A.B., D.M.D., Associate in Dentistry.**

A.B., Duke, 1928; D.M.D., Harvard, 1932; Int. in Dentistry, Johns Hopkins Hosp., 1932-1934; *Dentist, Duke Hospital, 1934—*

**NORMAN F. ROSS, D.D.S., Associate in Dentistry.**

D.D.S., Temple, 1937; Int. in Dentistry, Duke Hosp., 1937-1938; Major, U. S. Army Med. Corps, 1942-1946; *Assistant Dentist, Duke Hospital, 1938—*

**DOROTHY WATERS BEARD, R.N., Associate in Surgery.**

R.N., Vanderbilt, 1929; Supervisor, Surg. Service, Vanderbilt Univ. Hosp., 1929-1931; Post-graduate Course in Surg., Charity Hosp., New Orleans, 1931-1932; 1938—

**D. GORDON SHARPE, B.S., A.M., Ph.D., Assistant Professor of Biophysics in Experimental Surgery.**

B.S., Rutgers, 1932; A.M. and Ph.D., Duke, 1937 and 1939; Research Physicist in x-ray and ultraviolet ray, Westinghouse Elec. & Mfg. Co., Bloomfield, N. J., 1932-1936; Research Fellow in Physics, Duke Univ., and Fellow in Surg., Duke Med. Sch., 1936-1939; *Biophysicist, Duke Hospital, 1939—*

**IVAN W. BROWN, JR., B.S., M.D., Assistant Professor of Surgery.**

Univ. of Rochester, 1936; B.S., M.D., Duke, 1940; Ass't. Anat. and Physio., Duke, January 1940-July 1940; Int. and Ass't. Res., Path., Duke, 1940-1942; Capt., U. S. Army Med. Corps, 1942-1945; Ass't. Res. and Instr., Surg., Duke, 1945-1948; Dir., Blood Bank, Duke, 1946—; Markle Scholar in Med. Sci., 1948; Assoc. Med. Dir. (Part-time), Nat'l Blood Prog., Amer. Nat'l Red Cross, 1948-1949; Consultant, Nat'l Blood Prog., 1949—; *Associate in Surgery, Duke Hospital, 1945—*

**WILLIAM W. SHINGLETON, A.B., M.D., Assistant Professor of Surgery.**

A.B., Atlantic Christian Coll., 1939; M.D., Bowman Gray, 1943; Interne and Ass't. Resident in Surgery, Duke Hospital, 1943-1946; Army M.C., 1946-1948; Ass't. Resident, Duke Hospital, 1948-1949; Resident, Duke Hospital, 1949-50; Instructor in Surgery, 1950; *Associate in Surgery, 1950-52—*

**JOHN P. COLLINS, A.B., M.D., Assistant Professor of Surgery.**

A.B., M.D., Duke, 1941, 1944; Int. and Ass't. Res., Surg., Duke, 1944-1946; Capt., U. S. Army, M. C., 1946-1948; *Assistant Resident and Res., Surgery, Duke Hospital, 1948—*

**ALEXANDER W. BOONE, B.S., M.D., Associate in Urology.**

B.S., M.D., Duke, 1946.

**JAMES T. METZGER, B.S., M.D., Associate in Surgery.**

B.S., Univ. of Pittsburgh, 1945; M.D., Duke, 1945; Int. Surgery, Duke, 1945-46; U. S. Navy, 1946-48; A. Res. Surgery, Duke, 1948-49; Res. Plastic Surgery, Blodgett Memorial Hosp., Grand Rapids, Michigan, 1949-52.

**JOHN PLETCH ADAMS, B.S., M.D., Instructor in Orthopedics. (Fellow N.E.I.P.)**

B.S. (Medicine), Univ. of Missouri, 1943; M.D., Washington Univ., St. Louis, 1945; Int. Wilmington Gen. Hosp., Wilmington, Del., 1945-46; Capt., U. S. Army M.C., 1946-49; A. Res. Duke Hospital, July 1949-Dec. 1950; Res. N. C. Orthopedic Hospital, Gastonia, Jan. 1951-Dec. 1951; *Resident, Duke Hospital, Jan. 1952-Dec. 1952.*

**BYRON M. BLOOR (Neurosurgery), B.S., M.D., Instructor in Neurosurgery.**

B.S., Univ. of Idaho, 1942; M.D., Duke, 1945; Interne, Duke Hospital, 1945-46; U. S. Navy M.C., 1946-48; Res. in Neurology, U. S. V.A. Hospital, Louisville, Ky., 1948-49; Ass't. in Medicine, Section of Neurology, Louisville General Hospital, 1948-49; Ass't. Res. Neurosurgery, Duke, 1949-50; Ass't. Res. Neurosurgery and Damon Runyon Res. Fellow, 1950-52; *Resident in Neurosurgery, 1952—*

**JOHN C. BOVILL, B.S., M.D., *Instructor in Surgery.***

B.S., Michigan State, 1939; M.D., Wayne Univ., 1943; Int. St. Louis City Hosp., 1943; U. S. Army M.C., 1944-46; Fellow in Pathology, Washington Univ., St. Louis, 1946-47; Int. Surgery, Duke Hospital, 1947-48; Ass't. Res., Duke, 1948-52; *Resident, Duke Hospital, 1952—*

**RAPHAEL W. COONRAD, M.D., *Instructor in Orthopedics. (Fellow N.F.I.P.)***

M.D., Duke, 1947; Interne in Surgery, Duke Hospital, 1947-1948; Interne in Orthopedics, Duke Hospital, 1948-1949; Ass't. Resident in Orthopedics, Duke Hospital, 1949-1950; Resident in Orthopedics, Georgia Warm Springs Foundation, July, 1950-Jan., 1952; *Ass't. Resident in Orthopedics, Duke Hospital, 1952—*

**JOHN R. EMLET, M.D., *Instructor in Surgery.***

M.D., Duke, 1945; Int. Duke, 1945-46; U. S. Navy, 1946-48; Ass't. Res. Duke, 1948-50; Fellow in Surgery, 1950-51; *Ass't. Res. Duke, 1951-52.*

**BLAKE FAWCETT, A.B., M.D., *Instructor in Surgery.***

A.B., Duke University, 1943; M.D., Duke Univ., 1946; Interne in Thoracic Surgery, N. C. Sanatorium, McCain, Jan.-June, 1947; Interne, Duke Hospital, July-Dec., 1947; Ass't. Res. Duke Hospital, 1948; Research Fellow, U. S. Public Health Service, Duke, 1948-49; *Ass't. Res. Duke Hospital, 1949—*

**FRANCIS WYNNE MASTERS, M.D., *Instructor in Plastic Surgery.***

M.D., Univ. of Rochester, 1945; Interne in Surgery, Strong Memorial Hospital, 1945-1946; U. S. Army M.C., 1946-1948; Ass't. Resident in General Surgery, Strong Memorial Hospital, 1948-1951; Ass't. Resident in Plastic Surgery, Duke Hospital, 1951-1952; *Resident in Plastic Surgery, Duke Hospital, 1952—*

**VICTOR A. POLITANO, A.B., M.D., *Instructor in Urology.***

A.B., Marshall College, 1940; M.D., Duke, 1943; Interne in Medicine, Duke Hospital, 1944; Ass't. Resident in Urology, Duke Hospital, 1944-1945; U. S. Navy M.C., 1945-1946; General Practice, 1946-1950; Ass't. Resident in Urology, Duke Hospital, 1950-1952; *Resident in Urology, Duke Hospital, 1952—*

**BARNEY FOREMAN TIMMONS (Ophth. and Otol.), B.S., M.D., *Instructor in Ophthalmology and Otolaryngology.***

B.S., Univ. South Carolina, 1942; M.D., Med. College of S. C., 1945; Interne, Jersey City Medical Center, 1945-46; Capt., U. S. Army Med. Corps, 1946-48; Interne Ophthalmology, Duke Hospital, 1949; Ass't. Res. Ophthal. and Otol., 1950-51; *Resident in Ophth. and Otol., 1952—*

**RICHARD G. CONNAR, A.B., M.D., *Instructor in Surgery.***

A.B., M.D., Duke, 1941, 1944; Int. and Ass't. Res. Med., Duke, 1944-1946; Capt., U. S. Army, M. C., 1946-1948; *Intern and Assistant Resident, Surgery, Duke Hospital, 1948—*

**ALFRED N. COSTNER, B.S., M.D., *Instructor in Ophthalmology.***

B.S., Univ. of N. C., 1940; M.D., Washington Univ., 1943; Int., Norfolk Gen'l. Hosp., 1944; Int., Ophth. and Otol., Duke, 1944-1945; Capt., U. S. Army, M. C., 1945-1947; Ass't. Res. and Res., Ophth. and Otol., Duke, 1947-1949; Grad. Stud., Harvard Postgrad. Med. Sch., 1949-1950; *Resident and Instructor, Ophthalmology and Otolaryngology, Duke Hospital, 1950—*

**SAMUEL DACE MCPHERSON, JR., *Instructor in Ophthalmology.***

A.B., U. N. C., 1940; M.D., Johns Hopkins, 1943; Int., Ass't. Res. and Res., Ophthal., Wilmer Inst., 1943-48; Lt. (j.g.), Navy, 1946; *McPherson Hosp., 1948—*

**PAUL MCB. ABERNETHY, *Instructor in Ophthalmology.***

B.S., Wofford, 1941; M.D., Bowman Gray, 1943; Int., Surg., Grady Hosp., 1944; 1st Lt., Army, 1944-46; Int., Ass't. Res. and Res., Ophthal., Duke, 1948-51; *1952—*

**CHESTER R. TAYLOR, *Technical Associate in Surgery.*****WILLIAM J. THOMAS, *Technical Instructor in Surgery.*****BERT R. TITUS, *Technical Associate in Orthosis.***

## FELLOWS

R. H. BELSER (Orthopedics), \* B.S., Citadel, 1942; M.D., Duke, 1946.

ANTONIO BERRIOS (Orthopedic Fellow), Univ. San Carlos de Guatemala, M.D., 1949.

EUGENE E. BLECK (Orthopedics), \* M.D., Marquette, 1947.

ROY B. COFFEY (Orthopedics—A. A. F.), M.D.

RICHARD H. COTE (Orthopedics—A.A.F.), M.D., Yale Univ., 1948.

JOHN D. DiMICHELE (Orthopedics—A.A.F.), B.S., Univ. Vermont, 1942; M.D., Univ. Vermont Coll. of Med., 1945.

- GEORGE JOSEPH D'ANGELO, A.B., Lehigh Univ., 1947; M.D., Univ. Rochester, 1951. Fellow Cardio-Vascular Training Program.
- HERMAN A. GAILEY (Orthopedics), \* A.B., Lafayette Coll., 1943; M.D., Johns Hopkins, 1946.
- JAMES BOYD GOLDEN (Neurosurgery), A.B., M.D., Duke, 1943, 1946. Fellow U. S. Public Health Service.
- FREDERICK R. HOOK (Orthopedics—A.A.F.), M.D., Georgetown Univ., 1949.
- ROBERT L. A. KEELEY, M.D., Univ. of Va., 1944. Fellow Cardio-Vascular Training Program.
- C. KEITH LYONS, M.D., Duke, 1946. Fellow Damon Runyon Cancer Fund.
- FRANK H. LONGINO, B.S., M.D., Duke, 1947. Fellow Cardio-Vascular Training Program.
- FRANCIS H. MCCULLOUGH (Orthopedics—U.S.N.M.C.), A.B., Columbia Univ., 1940; M.D., Duke, 1943.
- EDWIN H. MARTINAT (Orthopedics), \* M.D.
- OLIVER A. MAYS (Orthopedics—A.A.F.), M.D.
- SI F. MOOREHEAD (Orthopedics—A.A.F.), M.D., Univ. of Tenn., 1946.
- ROBERT E. MUSGROVE (Orthopedics), \* M.D., Univ. of Tenn., 1946.
- CHARLES ROY ROWE, JR., B.S., Univ. of N. C., 1945; M.D., Vanderbilt, 1950. Fellow Cardio-Vascular Training Program.
- JOHN W. SULLENBERGER, M.D., Duke, 1951. Fellow Cardio-Vascular Training Program.
- EDWARD S. WHITESIDES (Orthopedics), \* M.D., Duke, 1951.
- RICHARD WRENN (Orthopedics), \* A.B., M.D., Duke, 1943, 1947.

## RESIDENTS AND ASSISTANT RESIDENTS

- WILLIAM G. ANLYAN, B.S., M.D., Yale Univ., 1945, 1949. Associate in Surgery.
- SAUL BOYARSKY (Urol.), B.S., M.D., Univ. Vermont, 1943, 1946.
- FRANK H. CAMPBELL, M.D., Duke, 1946.
- ALPHEUS M. COVINGTON (Urology), B.S., Wofford Coll., 1940; M.D., Duke, 1950.
- GEORGE D. GADDY (Ophth. and Otol.), B.S., Univ. of So. Car., 1944; M.D., Univ. Ga., 1949.
- NICHOLAS G. GEORGIADIS (Plastic Surgery), D.D.S., Columbia Univ. Coll. of Phys. and Surg., 1944; B.S., M.D., Duke, 1949, 1950. Associate in Oral Surgery; 1952—
- JAMES W. GIBSON, B.S., Univ. of S. C., 1947; M.D., Med. Coll. of S. C., 1951.
- EARL HALTIWANGER, JR., A.B., Emory Univ., 1947; M.D., Duke, 1951.
- CHARLES EDWIN HORTON (Plastic Surgery), A.B. Univ. Arkansas; B.S., Univ. Missouri; M.D., University Virginia, 1947.
- CHARLES P. LEWIS, JR. (Ophth. and Otol.), B.S., Wash. and Lee, 1940; M.D., Duke, 1949.
- EUGENE J. LINBERG, A.B., Duke, 1944; M.D., Duke, 1948.
- IRVING WARD MOHR (Oral Surg.), B.A., New York Univ., 1942; D.D.S., Columbia, 1945.
- CLAUDE McCLURE, JR. (Neurosurgery), B.S., Wake Forest College, 1947; M.D., Bowman Gray, 1950. (Hanes Fellow.)
- ANDRES MELERO, A.B., M.D., Duke, 1947, 1950.

\* National Foundation for Infantile Paralysis—Fellows.



- WALTER RIDGEWAY NEILL (Neurosurgery), B.S., Millsaps Coll., 1943; M.D., Cornell, 1950. (Hanes Fellow.)
- RICARDO SANCHEZ-BEAUJON (Orthopedics), M.D., University Central of Venezuela, Caracas, 1943.
- FRANK L. WRENN (Neurosurgery), A.B., Duke, 1943; M.D., Duke, 1946. Fellow Damon Runyan Cancer Fund.

## INTERNES

- LEROY WILLIS ALLEN, M.D., Hopkins, 1952; B.S. Eastern Nazarene, 1948.
- FRANKLIN EDWARD ALTANY, M.D., Duke, 1952; B.S. (Biology), St. Vincent College, 1948.
- FRANK BENTON COOPER (Ophth. and Otol.), B.A., Univ. North Carolina, 1948; M.D., Duke, 1952.
- ROBERT D. CROUCH, B.S., Univ. S. C., 1947; M.D., Med. College of S. C., 1948.
- NESTOR FLOR DE VENECIA, M.D., Univ. of the Philippines, 1950.
- RICHARD DUDLEY FLOYD, B.S., Univ. Kentucky, 1948; M.D., Yale, 1952.
- JOE WALTON FRAZER, JR., B.S., Clemson, 1948; M.D., Duke, 1951.
- LEE DARRELL GARTNER, M.D., Univ. of Nebraska, 1949; B.S., Univ. of Nebraska.
- ARTHUR PROCTOR HUSTEAD, M.D., Yale, 1952; B.S., Yale, 1948.
- WILBUR G. MCFARLAND (Oral Surgery), D.D.S., Univ. Maryland, 1952. Interne.
- FRANCIS ALBERT MORRIS, JR., M.D., Duke, 1952; A.B., Univ. Texas, 1948.
- PETER FERDINAND SCHATZKI, M.D., Tufts College Medical School, 1952; A.B., Harvard, 1948.
- ANIBAL ALBERTO ZAVALETA, B.S., Univ. of San Marcos (Lima, Peru), 1948; M.D., Univ. of San Marcos, 1950.

*General Surgery.* In the sixth quarter the students, during their course in physical diagnosis, attend clinics and demonstrations arranged to familiarize them with the techniques of examinations and diagnostic procedures used in general surgery and the surgical specialties. They also have the opportunity in this quarter to become familiar with certain basic principles in aseptic and atraumatic surgery and in isolation technique. The *junior* students, during their surgical quarter, attend ward rounds in surgery and the surgical specialties, act as clinical clerks on the wards and assist in the operative treatment of patients assigned to them. The surgical students in the *senior* year attend ward rounds in general surgery and the surgical specialties in the mornings and assist in the surgical out-patient clinics in the afternoon. Also in groups of two for the proportionate time available they are assigned to the emergency division of the out-patient clinic where they assist in the diagnosis and care of urgent conditions.

A six days' concentrated course of training in the administration of anesthetic agents is open to twenty-four medical students each school quarter. Properly qualified students observe and administer anesthesia under direct supervision of staff anesthetists.

*Otolaryngological Division.* An introductory course of instruction

in the use of otolaryngological instruments, with a review of normal anatomy, is given to second-year students in the sixth quarter. Clinics during one quarter of alternating years are given to junior and senior students; students during their pediatric quarter work in the otolaryngological out-patient clinic as assigned. Ward rounds are held separately each week for third- and fourth-year students. Patients are assigned to junior students during the surgical quarter.

*Ophthalmological Division.* During the sixth quarter second-year students receive instruction in elementary ophthalmology. During the senior pediatric quarter the students work in the ophthalmological out-patient clinic as assigned, and assist in the study and treatment of eye diseases. Especial emphasis is placed on the underlying medical and surgical conditions. Each student follows throughout his time in the out-patient clinic all patients assigned to him. For those who manifest an unusual interest in this specialty, provision will be made for more advanced work. Throughout the senior surgical quarter the students attend ophthalmological ward rounds for one hour each week. During either their third or fourth academic year clinics covering the more general neuro-ophthalmological and medical problems are given.

*Orthopaedic Division.* In the sixth quarter an introductory course is given. During the surgical quarters the junior and senior students attend weekly ward rounds of one hour each in orthopaedics and fractures. Students in their senior surgical quarter are assigned in rotation to the orthopaedic out-patient clinic. These students also attend orthopaedic staff rounds at 5:30 P.M. Mondays through Fridays. An elective course in the treatment of fractures, limited to three students, is offered during the junior and senior surgical quarters. An elective course in physical therapy is also offered during these quarters. Arrangements may be made for students who so desire to do research or experimental work. They may also attend the state orthopaedic clinics as held.

*Urologic Division.* In the sixth quarter, second-year students are given a course of lectures and practical demonstrations in urologic physical diagnosis in the normal individual student. Ward rounds on urologic patients are given every Saturday at 8:30 A.M. for third- and fourth-year students in their surgical quarter. Small groups are selected from the senior surgical group of students and assigned in rotation to the urologic out-patient clinic. During one quarter of the year, urologic clinics are given weekly for the junior and senior classes. These clinics deal with the affections of the male and female urinary tract and of the male genital tract. Clinics for urethroscopic and cystoscopic investigation and for the more technical methods of urologic diagnosis and treatment are held Monday, Wednesday, and Thursday from 1:30 to 5:00 P.M. and Tuesdays and Thursdays from



9:30 A.M. to 12:30 P.M. throughout the year. X-ray conferences on all urologic cases are held Tuesday, Thursday, and Saturday mornings from 8:30 to 9:30 and are followed by staff rounds. Three senior students may select one of these cystoscopic clinics, x-ray conferences, and staff rounds as an elective. *The Urologic Journal Club* meets each Monday from 4:30 to 6:30 P.M., and members of the staff review their respectively assigned journals. Interested students are welcome.

*Neurosurgical Division.* During all four quarters, separate weekly ward rounds are held for the junior and senior surgical groups. Emphasis in these rounds is placed upon the recognition of neurosurgical problems, followed by observation of the operative and post-operative procedures. Weekly x-ray and pathological conferences are held, and these may be attended by interested individuals. Tumor clinic conferences are held bi-monthly, on each second and third Thursday of the month.

*Division of Plastic Surgery.* Weekly ward rounds are given to familiarize both third- and fourth-year students with the principles and practice of plastic and oral surgery. Ward patients are assigned to the third-year surgical students and the fourth-year surgical students work up patients in the out-patient clinic. Each Tuesday and Thursday afternoon, an opportunity is afforded interested students to observe moulage and cast work, cosmetic restoration of color, the making of prosthetic appliances, etc. This work is done under the direction of Mr. Elon H. Clark, Professor of Medical Art and Illustration.

*Division of Thoracic Surgery.* During the academic year ward rounds, lectures and demonstrations are held to acquaint the third- and fourth-year students with the principles and practice of surgery of the chest. The anatomy and physiology of the respiration and circulation are reviewed and their application to thoracic surgery is stressed. X-ray diagnosis is emphasized and frequent pathology conferences are held to give the students a well-rounded knowledge of the surgical diseases of the chest.

*Division of Anesthesiology.* Junior students, during their surgical quarter, are given a series of eleven lectures by the medical anesthesiologists. Following a brief history of anesthetic drugs, the response of the body to such drugs is discussed. The physiological basis of the reactions encountered in the operating room is stressed and the rational for choice of agents for various patients is presented. A six day's concentrated course of training in the administration of anesthetic agents is open to twenty-four senior medical students each school quarter. These students observe and administer anesthetics under the supervision of staff anesthetists, see page ???.

*Dentistry.* Second-year students, in the sixth quarter, are instructed in the principles of dentistry.

## *Radiology*

ROBERT JAMES REEVES, A.B., M.D., *Professor of Radiology and Chairman of the Department.*

A.B. and M.D., Baylor, 1920 and 1924; Int., Baylor Hosp., 1924-1925; Res. in Roentgenol., Mass. Gen'l. Hosp., 1925-1926; Ass't. Attending Phys. in Roent. Ray Dept., Presbyterian Hosp., and Med. Center, N. Y., 1926-1930; Instr. in Med., Columbia Med. Sch., 1925-1930; *Radiologist, Duke Hospital, 1930—*

GEORGE JAY BAYLIN, A.B., M.D., *Professor of Radiology and Associate in Anatomy.*

A.B., Johns Hopkins, 1932; M.D., Duke, 1937; Ass't. in Anat., Duke Med. Sch., 1934-1937; Int. in Surg., Sinai Hosp., Balto., 1937-1938; Voluntary Ass't. in Path., Guy's Hosp., London, Sept., 1938-Feb., 1939; Instr. in Anat., Duke Med. Sch., Ass't. Res., and Res. in Rad., and *Associate Radiologist, Duke Hospital, 1939—*

JOSEPH A. BOYD, A.B., M.D., *Assistant Professor of Radiology.*

A.B., King Coll., 1941; Postgrad., Davidson, 1942; M.D., Med. Coll. of Va., 1945; Rot. Int., Med. Coll. of Va. Hosp., 1946; U. S. A. A. F., Capt., M. C. 1946-1947; Fell., Radio., Johns Hopkins, 1948-1949; Ass't. Res. and Res., Radio., Johns Hopkins, 1949-1951; *Radiologist, Duke Hospital, 1951—*

EDWARD KENT CARTER, B.S., M.D., *Instructor in Radiology.*

B.S., Lincoln Memorial University, 1943; M.D., Medical College of Va., 1946; Internship, Southern Baptist Hospital, New Orleans, La., 1946-1947; *Assistant Res. and Res. Radiology, Medical College of Va., Richmond, Va., 1949-1952*

JOHN B. CAHOON, JR., R.T., A.S.X.T., *Technical Instructor in Radiology.*

BETTY MASTERSON, R.T., *Technical Instructor in Radiology.*

### GRADUATE STUDENTS (HOUSE STAFF)

#### RESIDENTS

ROBERT L. PINCK, A.B., Washington and Lee, 1942; M.D., Duke, 1946.

AUBREY P. HORNSBY, B.S., Univ. of Ala., 1941; M.D., Columbia Univ., 1946.

#### ASSISTANT RESIDENTS AND ASSISTANTS

KERMIN ANIS ABDUL, M.D., Royal Coll. of Med., Gahghdad, Iraq, 1947.

MURRAY T. JACKSON, JR., M.D., Duke, 1950.

JOSEPH H. McALISTER, M.D., Duke, 1947.

SIMMONS I. PATRICK, B.S., M.D., Duke, 1950.

LUCIUS G. SMITH, A.B., Washington and Lee; M.D., Duke, 1948.

ALLEN TAYLOR, B.S., M.D., Duke, 1943 and 1947.

JOSEPH K. ISLEY, B.S., Univ. of N. C., 1946; M.D., Bowman Gray, 1948.

The student teaching schedule in roentgenology consists of a course in roentgen diagnosis and a course in therapeutic radiology. The first is offered during each scholastic quarter on Tuesday and Thursday of each week. The fundamental physics of x-ray is discussed, with the chief emphasis being placed upon the anatomical, pathological and physiological bases for the interpretation of x-ray films. The course is conducted in seminar fashion and no formal lectures are given. The students participate in and lead discussions with the instructor serving as the moderator. An attempt is made to acquaint the student with the aids of roentgenology in diagnostic problems. The correct use of x-rays in diagnosis is stressed.

Therapeutic radiology is given one hour weekly during each quarter. At these sessions the general problem of the treatment of benign, inflammatory and malignant lesions by x-ray and radium is discussed

and the accepted views of the combination of these therapeutic agents with surgery is stressed. Representative cases are demonstrated, and the follow-up results are particularly stressed.

A limited number of senior students are permitted to attend routine film reading sessions in the Department of Radiology. They are also instructed in the fundamentals of fluoroscopic examinations and shown the many pitfalls of the inexperienced fluoroscopist.

A number of conferences with the resident house staff are conducted throughout the year. Each Monday from 8:30 to 9:30 A.M. a session with the ear, nose and throat staff is held, during which the roentgen and operative findings are correlated. Each Tuesday from 11:30 A.M. to 12:30 P.M. a pediatric conference is held at which current cases are discussed and clinical and x-ray findings are given. On alternate Wednesdays from 5:00 to 6:00 P.M. conferences are held with the surgical and medical house staffs and all cases with significant x-rays are presented for general discussion. The neurosurgical staff meets with members of the x-ray department every Saturday from 10:00 to 11:00 A.M. for a discussion of all cases that have been studied by the department.

Each Thursday afternoon and Wednesday evening a conference is held by the members of the x-ray staff and visiting radiologists. Difficult cases are brought up for discussion and diagnosis.

## *Obstetrics and Gynecology*

BAYARD CARTER, A.B., B.A., M.A., M.D., *Professor of Obstetrics and Gynecology and Chairman of the Department.*

A.B., Delaware, 1920; B.A. and M.A., Oxford, 1923 and 1924; M.D., Johns Hopkins, 1925; Member Obs. and Gyn. Staff of New Haven Hosp. and Yale Med. Sch., 1925-1929; Assoc. Prof. Obs. and Gyn., and Head of Dept., Univ. of Va. Med. Sch., 1929-1931; *Obstetrician and Gynecologist, Duke Hospital, 1931—*

EDWIN CROWELL HAMBLIN, B.S., M.D., *Associate Professor of Obstetrics and Gynecology and Professor of Endocrinology.*

B.S. and M.D., Virginia, 1921 and 1928; Ass't. and Instr. in Pharmacol. and Materia Medica, Baylor Med. Coll., 1922-1926; Int. and Res., Obs. and Gyn., Univ. of Va. Hosp., 1928-1930; Clin. Instr. in Obs. and Gyn., Univ. of Va. Med. Dept., 1930-1931; *Associate Obstetrician and Gynecologist; and Endocrinologist, Duke Hospital, 1931—*

WALTER LEE THOMAS, JR., A.B., A.M., M.D., *Associate Professor of Obstetrics and Gynecology.*

A.B., Lynchburg, 1926; A.M. and M.D., Virginia, 1927 and 1931; Int., Virginia-Mason Hosp., 1931-1932; Ass't. Res. and Res. in Obs. and Gyn., Duke Hosp., 1932-1935; Assistant Obstetrician and Gynecologist, Henry Ford Hosp., Detroit, 1936-1937; Ass't. Obstetrician and Gynecologist, Duke Hosp., 1937-1942; Major, Med. Corps, 65th (U. S.) Gen. Hosp., 1942-1945; *Assistant Obstetrician and Gynecologist, Duke Hospital, 1945—*

ROBERT NOWELL CREADICK, A.B., M.D., *Associate Professor of Obstetrics and Gynecology.*

A.B., Wesleyan Univ., 1933; M.D. Yale, 1937; Int., Hartford Hosp., 1937-1939; Ass't. Res. and Res., Duke Hosp., 1939-1943; Major, Med. Corps, U. S. Army, 1943-1946; Chief, Obs. Section, Walter Reed Gen. Hosp., 1945-1946; *1946—*

ROBERT LEONHARDT ALTER, A.B., M.D., *Assistant Professor of Obstetrics and Gynecology.*

A.B., Dartmouth, 1932; M.D., Duke, 1937; Int., Med., Johns Hopkins Hosp., 1937-38; Int., Obs., Baltimore City Hosp., 1938-39; Int., Ass't. Res., and Res., Obs., Duke, 1939-1944; *Assistant Obstetrician and Gynecologist, Duke Hospital, 1951—*

- VIOLET HORNER TURNER, B.A., M.D., *Assistant Professor of Obstetrics and Gynecology*. B.A., Univ. Hawaii, 1936; M.D., Univ. Chicago, 1940; Int., Rotat., Cincinnati General, 1940-1941; Ass't. Res., Endocrine, Duke Hospital, 1941; Int., Obstetrics, 1942, Lying-In Hosp., Chicago; Ass't. Res., Endocrine, Duke, 1943; Ass't. Res., Ob.-Gyn., 1943-1944; Res., 1944-1945; 1943—
- ELEANOR BEAMER EASLEY, B.A., M.A., M.D., *Associate in Obstetrics and Gynecology*. B.A., Idaho, 1928; M.A., Iowa, 1929; M.D., Duke, 1934; Int. and Ass't. Res. in Med., and Int., Ass't. Res., and Res. in Obstetrics and Gynecology, and *Assistant Obstetrician and Gynecologist, Duke Hospital, 1934—*
- CLARENCE DANIEL DAVIS, S.B., M.D., *Assistant Professor of Endocrinology, Obstetrics and Gynecology*. S.B., Mass. Inst. of Tech., 1935; M.D., Johns Hopkins, 1939; Int., Robert Packer Hosp., 1939-40; Int., Genesee Hosp., 1940-41; Int., Univ. Hosp., Minn., 1941-42; Ass't. Res., Res., Instr., Endocr., Obs.-Gyn., Duke, 1942-46; Assoc., Endocr., Mason Clinic, Seattle, Wash., 1946-50; *Associate Obstetrician and Gynecologist, Duke, 1950—*
- MARVIN PIERCE RUCKER, A.M., M.D., LL.D., *Lecturer in Obstetrics and Gynecology*. A.B., A.M., and LL.D., Randolph-Macon, 1899 and 1938; M.D., Johns Hopkins, 1903; N. Y. Lying-In Hosp.; Demonstrator in Physiol., Pharmacol., Histol., Path., Embryol., and Obs., and Assoc. in Obs., and Assoc. Prof. of Obs., Med. Coll. of Va., 1903-1930; Obstetrician, Johnson-Willis Hosp., Richmond, Va., 1930; 1941—
- ROBERT ALEXANDER ROSS, B.S., M.D., *Visiting Lecturer in Obstetrics and Gynecology*. B.S., North Carolina, 1920; M.D., Pennsylvania, 1922; Res. Physician, Univ. of Pa. Settlement House, 1921-22; Int., Episcopal Hosp., Phila., 1922-1924; Int. and Res., Kensington Hosp. for Women, 1923-1925; Comdr., Med. Corps, U. S. Navy, 1942-1945; Ass't., Assoc. and Prof. of Obs.-Gyn., Duke Hosp., 1930-1952; Prof., Obs.-Gyn., Univ. of N. C. Mem. Hosp., 1952—; 1952—
- LEONARD PALUMBO, JR., A.B., M.D., *Visiting Lecturer in Obstetrics and Gynecology*. A.B., M.D., Duke, 1940 and 1944; Int., Obs.-Gyn., Duke, 1944-45; Ass't. Res., Obs.-Gyn., Endocr., Duke, 1945-47; Int., Path., Duke, 1948; Res., Obs.-Gyn., Duke, 1949-50; Assoc., Obs.-Gyn., Duke, 1950-52; Assoc., Obs.-Gyn., Univ. of N. C. Mem. Hosp., 1952—; 1952—
- JOHN C. PORTER, B.A., M.A., Ph.D., *Research Instructor in Endocrinology Laboratory Technics*. B.A., Baylor Univ., 1949; M.A., Texas Tech., 1950; Ph.D., Iowa State, 1952; 1952—
- CHRISTA VON ROEBEL, M.D., *Associate in Obstetrics and Gynecology*. M.D., Univ. of Leipzig, 1937; Obs.-Gyn., Univ. of Leipzig, 1937-1945; Acting Chmn., Dept. Obs.-Gyn., Univ. of Leipzig, 1945-1948; Assoc., Obs.-Gyn., Duke, 1950—
- WILLIAM A. GRAHAM, *Instructor in Obstetrics and Gynecology*. M.D., Univ. of Pa., 1932; Int., Union Mem. Hosp., 1932-1933; Int., Royal Victoria Hospital, 1933-1934; Res., Woman's Hosp., 1934-1937; 1938—
- TROGLER F. ADKINS, *Instructor in Obstetrics and Gynecology*. M.D., Duke, 1936; Int. in Surg., Duke, 1936-1937; Int., Ass't. Res., and Res. in Obs. and Gyn., and *Assistant Obstetrician and Gynecologist, Duke Hospital, 1938—*
- RICHARD L. PEARSE, M.D., *Instructor in Obstetrics and Gynecology*. M.D., Harvard, 1931; House Officer, Free Hosp. for Women, 1931; Int., Mass. Gen. Hosp., 1932-1934; Ass't. Res., Providence Lying-In Hosp., 1935; Ass't. Res. and Res. in Obs. and Gyn., Duke Hospital, 1935-1938; 1938—
- KENNETH A. PODGER, A.B., M.D., *Instructor in Obstetrics and Gynecology*. A.B., M.D., Duke, 1937 and 1941; Int. and Ass't. Res. in Med., Duke, 1941-1942; Lt., Med. Corps, U. S. Navy, 1942-1945; Ass't. Res. and Res., Duke, 1946-1948; 1946—
- W. KENNETH CUYLER, B.A., M.A., Ph.D., *Research Instructor in Obstetrics and Gynecologic Laboratory Technics*. B.A., Texas, 1923; M.A., Western Reserve, 1929; Ph.D., Duke, 1941; Dir. of Clin. Lab. Dept. of Endocrinol. and Metabolism, Cleveland Clinics, 1929-1938; 1938—
- C. P. JONES, *Technical Research Instructor in Obstetrics and Gynecology*.

## GRADUATE STUDENTS (HOUSE STAFF)

## RESIDENTS

- BENJAMIN J. PHILIPS, B.S., Davidson, 1942; M.D., Duke, 1945.
- CLARENCE L. RUFFIN, A.B., Univ. of N. C., 1942; M.D., Duke, 1945.

## ASSISTANT RESIDENTS

- HOWARD C. DUCKETT, JR., A.B., M.D., Duke, 1941, 1944.
- MARGARET E. JOYCE (Endocrinology), B.S., Alabama Coll. for Women, 1937; M.D., Med. Coll. of Alabama, 1949.



SIMON I. KEMP, B.S., Loyola Univ., 1930; M.D., Georgetown Univ., 1934.

CHARLES H. PEETE, JR., M.D., Harvard, 1947.

DOUGLAS P. RUCKER, M.D., Duke, 1950.

WELLS E. SAWTELLE (Endocrinology), M.D., Univ. of Oregon, 1945.

#### INTERNS

JAMES H. AUSTIN, M.D., Duke, 1951.

JOSEPH D. CORPENING, M.D., 1952.

DANIEL A. MAIRS, M.D., Duke, 1950.

EUGENE McCLUNG, M.D., Duke, 1952.

HENRY L. WRIGHT, JR., M.D., Duke, 1952.

*Second-year* students receive seventeen hours of instruction in the fundamentals of obstetrics and gynecology during their course in physical diagnosis in the sixth quarter. Clinics and demonstrations for junior and senior students are held on Saturdays at 10:30 A.M. during the Autumn, Winter, and Spring Quarters and on Mondays at 11:30 A.M. in the Summer Quarter. During one quarter of the *junior* year each group of students attends ward rounds at 8:30 A.M. on Mondays, Wednesdays, and Saturdays; preoperative conferences at 8:30 A.M. on Tuesdays and Fridays; and the out-patient clinic at 1:30 P.M. five times weekly, for nine weeks. They also attend an endocrine clinic once a week for nine weeks during the junior year. The students also spend part of each day on the wards. *Senior* students, during their surgical quarter, have ward rounds on obstetrics and gynecology on Saturdays at 8:30 A.M.

*Elective* courses in the diagnosis and treatment of obstetric and gynecological conditions are offered for junior and senior students.

### *Pediatrics*

WILBURT CORNELL DAVISON, A.B., B.A., B.Sc., M.A., M.D., D.Sc., LL.D., *Dean of the School of Medicine and Professor of Pediatrics.*

A.B., Princeton, 1913; B.A., B.Sc., and M.A., Oxford, 1915, 1916, and 1919; M.D., Johns Hopkins, 1917; D.Sc., Wake Forest, 1932; LL.D., North Carolina, 1944; Int., Radcliffe Infirmary, 1915-1916; Capt., Med. Corps, A.E.F., 1917-1919; Ass't. Res., Assoc. Ped., Acting Pediatrician in Charge, Johns Hopkins Hosp., 1919-1927; Instr., Assoc., Assoc. Prof., Acting Head of Dept. of Ped., and Ass't. Dean, Johns Hopkins Med. Sch., 1919-1927; *Pediatrician, Duke Hospital, 1927—*

JEROME SYLVAN HARRIS, A.B., M.D., *Professor of Pediatrics and Associate Professor of Biochemistry.*

A.B., Dartmouth, 1929; M.D., Harvard, 1933; Med. House Officer, House of Good Samaritan, Boston, Oct., 1933-Jan., 1934; Int. in Med., Univ. of Chicago Clinics, 1934-1935; Int., Infants and Children's Hosp., Boston, 1935-1936; Ass't. Res. and Assistant Pediatrician, Duke Hosp., 1936-1942; Lt. Col., Med. Corps, U. S. Army, 1942-1945; *Pediatrician, Duke Hospital, 1936—*

ARTHUR FREDERICK ABT, B.S., M.D., *Professor of Pediatrics.*

B.S., M.D., Johns Hopkins, 1923; Associate Prof., Ped., Northwestern, 1952; 1952—

ANGUS MCBRYDE, B.S., M.D., *Associate Professor of Pediatrics.*

B.S., Davidson, 1924; M.D., Pennsylvania, 1928; Int. and Res. in Ped., Univ. of Pa. Hosp., 1928-1930; Ass't. Res. in Ped., Johns Hopkins Hosp., and Ass't. in Ped., Johns Hopkins Med. Sch., 1930-1931; *Associate Pediatrician, Duke Hospital, 1931—*

**\*HARVEY GRANT TAYLOR, A.B., A.M., M.D., Associate Professor of Pediatrics and Bacteriology, and Associate Dean.**

A.B., San Jose State, 1928; A.M., Stanford, 1929; M.D., Duke, 1940; Int. in Ped., Duke Hosp., 1940-1941; Ass't. Res. and Res. in Ped., Alfred I. duPont Instit., Nemours Found., Wilmington, Del., 1941-1943; Lt. Col., Med. Corps, U. S. Army, 1943-1946; *Associate Pediatrician, Duke Hospital, 1940—*

**JAY MORRIS ARENA, B.S., M.D., Associate Professor of Pediatrics.**

B.S., West Virginia, 1930; M.D., Duke, 1932; Int. in Ped., Johns Hopkins Hosp., 1932-1933; Ass't. Res., Res., and *Associate Pediatrician, Duke Hospital, 1933—*

**SUSAN COONS DEES, A.B., M.S., M.D., Associate Professor of Pediatrics.**

A.B., Goucher, 1930; M.D., Johns Hopkins, 1934; M.S., Minnesota, 1938; Int., Johns Hopkins Hosp., 1934-1935, and Ass't. Res. in Med., Strong Mem. Hosp., 1935-1936; Int. in Path., Balto. City Hosps., and Ass't. Johns Hopkins Protein Clinic, 1936-1937; Research Fellow in Ped., Univ. of Minnesota, 1937-1938; Ass't. Disp. Physician, Johns Hopkins Hosp., 1938-1939; *Associate Pediatrician, Duke Hospital, 1939—*

**ARTHUR HILL LONDON, JR., B.S., M.D., Associate in Pediatrics.**

B.S., North Carolina, 1925; M.D., Pennsylvania, 1927; Int., Rotat., Methodist Episcopal Hosp., Phila., 1927-1928; Ass't. Res. in Ped., Children's Hosp., Cincinnati, 1928-1929; Chief Res., Children's Hosp., Phila., and Instr. in Ped., Pennsylvania Med. Sch., 1929-1930; *Assistant Pediatrician, Duke Hospital, 1932—*

**ROBERT J. MURPHY, JR., B.S., M.D., Associate in Pediatrics.**

B.S., State Teachers, Tenn., 1936; M.D., Vanderbilt, 1940; Int., Ob. and Ped., Duke, 1940-41; Ass't. Phys., Med., State Hosp., Goldsboro, N. C., 1941-43; Ass't. Phys., Med., State Hosp., Morganton, N. C., 1943-45; Int., Ass't. Res., and Res., Ped., Duke, 1945-47; Priv. Prac., 1947-48; N. C. States Bd. of Health, 1950; *Assistant Pediatrician, Duke Hospital, 1950—*

**WILLIAM J. A. DEMARIA, B.S., M.D., Associate in Pediatrics.**

B.S., Univ. of Conn., 1944; M.D., Duke, 1948; Int., Ass't. Res., and Res., Ped., Duke, 1948-1951; Markle Scholar in Med. Science, 1952—; *Assistant Physician, Duke Hospital, 1951—*

**ATALA THAYER SCUDDER DAVISON, A.B., M.D., Associate in Pediatrics.**

A.B., Bryn Mawr, 1915; M.D., Johns Hopkins, 1920; Ass't. in Bact., Am. Red Cross, A.E.F., 1917-1918; *1942—*

**MILDRED M. SHERWOOD, R.N., Associate in Pediatrics.**

Diploma, Mount Sinai Hospital, New York City, 1923; Head Nurse, Mount Sinai Hospital, 1923-26; Head Nurse, Johns Hopkins Hospital, 1926-30; *Supervisor of Pediatric Nursing Service, 1930—*

**J. STREET BREWER, M.D., Instructor in General Practice of Medicine.**

M.D., Jefferson Med. Coll., 1919.

**GEORGE F. BOND, M.D., Instructor in General Practice of Medicine.**

M.D., McGill Univ., 1945.

**AMOS N. JOHNSON, M.D., Instructor in General Practice of Medicine.**

M.D., Univ. of Pa., 1933.

**GEORGE A. WATSON, JR., A.B., M.D., Instructor in Pediatrics.**

A.B., M.D., Duke, 1934 and 1939; Rot. Int., Watts Hosp., 1939-40; Ass't. Res., Ped., Watts Hosp., 1940-41; Ass't. Res., Ped., Children's Hosp., Phila., 1941-42; U. S. Army, M.C., Capt., 1942-46; Res., Ped., Duke, 1946-47; *1947—*

**WILLIAM W. FARLEY, B.A., M.D., Instructor in Pediatrics.**

B.A., Univ. of Richmond, 1940; M.D., Med. Coll. of Va., 1943; Rot. Int., Charlotte Mem. Hosp., 1943-44; Capt., U. S. Army, M.C., 1944-46; Priv. Prac., 1946-48; Ass't. Res. and Res., Ped., Duke, 1948-49; *1949—*

**JOHN T. KING, A.B., M.A., M.D., Instructor in Pediatrics.**

A.B., Elon Coll., 1938; M.A., Duke, 1941; M.D., Med. Coll. of Va., 1945; Rot. Int., Rex Hosp., 1945-46; Int. and Ass't. Res., Ped., Duke, 1947-49; *1949—*

**FREDERICK T. EASTWOOD, B.A., M.D., Instructor in Pediatrics.**

B.A., Duke, 1941; M.D., Temple Univ., 1944; Lt. (jg), U. S. Navy, M. C., 1944-46; Preceptorship, Ped., San Diego, Calif., 1946-48; Ass't. Res. and Res., Ped., Duke, 1948-1949; *1949—*

**PAUL FRANKLIN MANESS, A.B., M.D., Instructor in Pediatrics.**

A.B., M.D., Duke, 1936, 1940; Rot. Int., Grady Hosp., 1940-1941; Ass't. Res., Steiner Clinic, 1941-1942; Lt. Cmdr., Med. Corps, U. S. Navy, 1942-1947; Ass't. Res., Ped., Duke, 1947-1949; *1947—*

\* On leave, 1950-53.



GEORGE WALLACE KERNODLE, A.B., M.D., *Instructor in Pediatrics.*

A.B., Elon Coll., 1941; M.D., Duke, 1944; Int., Ped., 1945; Ass't. Res., Ped., Children's Hosp., Cincinnati, O., 1945-1946; Ass't. Res., Ped., Duke, 1946-1947; 1946—

BAILEY DANIEL WEBB, A.B., M.S., Ph.D., M.D., *Instructor in Pediatrics.*

A.B., Greensboro Coll., 1933; M.S., Ph.D., U. North Carolina, 1939, 1941; M.D., Duke, 1946; Biochemist Coop. Nutritional Study, N. C. Bd. of Hlth. and Rockefeller Fdtn., 1941-1944; Int., Ass't. Res., Ped., St. Louis Children's Hosp., 1946-1949; 1949—

BENJAMIN SMITH SKINNER, *Instructor in Pediatrics.*

B.S., North Carolina, 1937; M.D., Washington, 1940; Int., Ped., St. Louis Children's Hosp., 1940-1941; Int. and Ass't. Res., Med., Duke, 1941-1942; Ass't. Res., Ped., St. Louis Children's Hosp., 1942-1944; Capt., Med. Corps, U. S. Army, 1944-1946; 1946—

ELEANOR JANE HERRING WOOTEN, *Instructor in Pediatrics.*

A.B., Greensboro, 1939; M.D., Duke, 1943; Int., Ped., Mass. Gen. Hosp., 1943; Int., Ped., Duke, 1943-1944; Ass't. Res., Ped., Mass. Gen. Hosp., 1944; Ass't. Res., Ped., Vanderbilt, 1944-1945; Ass't. Res., Ped., Los Angeles Children's Hosp., 1945-1946; 1946—

EDWARD PARSONS KINGSBURY, JR., M.D., *Instructor in Pediatrics.*

M.D., Duke, 1949; Int. in Ob. and Gyn., Watts Hosp., 1949; Int. in Ped., Duke, 1949; Ass't. Res. in Ped., Watts Hosp., 1950-51; Res. in Ped., Duke, 1951-52; 1952—

### GRADUATE STUDENTS (HOUSE STAFF)

#### RESIDENTS AND ASSISTANT RESIDENTS

ROSALIND G. SMITH ABERNATHY, A.B., M.D., Duke, 1945 and 1949; 10/1/51—

LAURENA P. BOOKER, M.D., Duke, 1941; 7/1/52—

CHARLES P. BUGG, A.B., Duke, 1947; M.D., Johns Hopkins, 1951; 7/1/52—

WILLIAM LIES, III, M.D., Duke, 1948; 8/1/52—

JULIA K. LING, A.B., Bryn Mawr Coll., 1946; M.D., Columbia U. Coll. of Phys. & Surg., 1950; 7/1/52—

DAVID A. LOCKHART, B.A., Univ. of the South, 1943; M.D., Duke, 1941; 1/1/51—

A. DOUGLAS RICE, M.D., Duke, 1931; 3/17/51—

JOAN B. RODNAN, A.B., M.D., N. Y. U., 1946 and 1950; 7/1/52—

CHARLES F. SEYMOUR, B.S., U. of Fla., 1940; M.D., Duke, 1950; 1/1/50-12/30/52.

GORDON D. STANLEY, B.S., Univ. of Fla., 1947; M.D., Duke, 1951; 1/15/52—

THOMAS E. WALKER, A.B., Davidson Coll., 1939; M.A., M.S., Univ. of No. Car., 1941 and 1942; M.D., Harvard, 1950; 7/1/50—

#### INTERNS

FRANK P. ANDERSON, JR., B.S., Davidson Coll., 1949; M.D., Med. Coll. of South Carolina, 1952; 7/1/52—

WILLIAM REED BELL, B.A., Univ. of the South, 1949; M.D., Duke, 1942; 1/1/53—

RICHARD M. BOWLES, M.D., Duke, 1952; 1/1/52—

HOWARD L. COX, B.A., M.D., Duke, 1947 and 1951; 7/1/52—

GUNYON M. HARRISON, B.S., Va. Mil. Inst., 1943; M.D., U. of Va. Med. Sch., 1946; 1/1/52—

DORIS MARCELLE HONIG, B.A., Hunter Coll., 1944; M.D., Geo. Washington, 1952; 7/1/52—

ALLAN H. JEFFERIES, B.A., M.D., U. of Va., 1947 and 1951; 7/1/52—

KARL A. LEITHEISER, A.B., Duke, 1941; M.D., Med. Coll. of Ga., 1952; 7/1/52—

ROBERT M. ROSEMOND, A.B., M.D., Duke, 1949 and 1952; 1/1/53—

CHARLES H. WATSON, M.D., Med. Coll. of Ga., 1952; 7/1/52—

#### INTERNS (OBSTETRICS-PEDIATRICS)

SPENCER R. GARRETT, B.S., Univ. of Miami, 1948; M.D., Duke, 1952; 7/1/52—

CHARLES E. INMAN, A.B., M.D., Duke, 1947 and 1951; 7/1/51—

*Junior* and *senior* students, during their medical quarters, have pediatric ward rounds on Saturdays, from 8:30 to 9:30 A.M. These *junior* students receive instruction in introductory pediatrics and the physical diagnosis of infants and children. The *senior* students are divided into three groups, each of which spends one quarter in pediatrics. During this quarter they are assigned daily as clinical clerks on the children's ward, nursery, and pediatric out-patient clinic, attend ward rounds at 8:30 A.M. Mondays and Fridays and 9:30 A.M. on Wednesdays; attend the staff conference at 8:30 A.M. on Wednesdays; attend child guidance clinics each Monday at 11:00 A.M.; attend conferences on pediatric roentgenology each Tuesday at 11:30 A.M.; are instructed in the practical nursing of infants by Miss Sherwood on Fridays at 9:30 A.M.; and are taught the preparation of diets for infants and children by the Professor of Dietetics. Each student attends infant feeding clinics on Fridays during this quarter. Students may attend, on voluntary basis, the special pediatric clinics—nephritis, cardiac, allergy, and convulsive disorders. *Elective courses:* Senior students may spend two weeks in general practice with Instructors in General Practice. In addition to the six pediatric internships, there are four in which six months each are spent in obstetrics and pediatrics for graduates who plan to enter general practice. Seven assistant residencies and one residency are available.

## *Preventive Medicine and Public Health*

NORMAN FRANCIS CONANT, B.S., A.M., Ph.D., *Professor of Mycology and Associate Professor of Bacteriology.*

DAVID TILLERSON SMITH, A.B., M.D., *Professor of Bacteriology, Chairman of the Department, and Associate Professor of Medicine.*

ELBERT LAPSLEY PERSONS, A.B., M.D., *Associate Professor of Medicine, Director of Student Health, and Associate Professor of Preventive Medicine and Public Health.*

A. S. PEARSE, B.S., A.M., Ph.D., LL.D., *Professor of Zoology.*

JOHN E. LARSH, JR., A.B., M.S., Sc.D., *Associate in Parasitology.*

A.B. and M.S., Illinois, 1939 and 1940; Sc.D., Johns Hopkins, 1943; Professor of Parasitology, Univ. of N. C., 1943.

EDWARD G. MCGAVRAN, A.B., M.D., M.P.H., *Visiting Lecturer in Preventive Medicine and Public Health.*

A.B., Butler Univ., 1924; M.D., M.P.H., Harvard, 1928, 1935; Dean and Professor of Epidemiology, Sch. of Publ. Hlth., Univ. of N. C.

CECIL G. SHEPS, M.D., M.P.H., *Visiting Lecturer in Preventive Medicine and Public Health.*

M.D., Univ. of Manitoba, 1936; M.P.H., Yale, 1947; Assoc. Prof. of Publ. Hlth. Admin., Sch. of Publ. Hlth., and Res. Assoc. in the Inst. for Res. in Social Science, Univ. of N. C.

JOHN J. WRIGHT, A.B., M.D., M.P.H., *Visiting Lecturer in Preventive Medicine and Public Health.*

A.B., M.D., Vanderbilt, 1931, 1935; M.P.H., Johns Hopkins, 1939; Prof. of Publ. Hlth. Admin., Sch. of Publ. Hlth., Univ. of N. C.

WILLIAM C. GIBSON, B.S.C.E., M.P.H., *Visiting Lecturer in Preventive Medicine and Public Health.*

B.S.C.E., N. Y. Univ., 1936; M.P.H., Univ. of N. C., 1950; Instr. in Field Training,

- SIDNEY S. CHIPMAN, B.A., M.D., C.M., M.P.H., *Visiting Lecturer in Preventive Medicine and Public Health*  
B.A., Acadia Univ., 1924; M.D., C.M., McGill, 1928; M.P.H., Yale, 1947; Prof. of Maternal and Child Health, Sch. of Publ. Hlth., Univ. of N. C.
- WILLIAM P. RICHARDSON, A.B., M.D., M.P.H., *Visiting Lecturer in Preventive Medicine and Public Health*.  
A.B., Wake Forest Coll., 1926; M.D., Med. Coll. of Va., 1928; M.P.H., Johns Hopkins, 1933; Res. Prof. of Publ. Hlth. Admin., Sch. of Publ. Hlth., Univ. of N. C.
- W. G. BROWN, A.B., *Instructor in Preventive Medicine and Public Health*.  
A.B., North Carolina, 1932; Chemist, Water Dept., Durham, N. C.
- ALBERT DERWIN COOPER, A.B., M.D., *Instructor in Medicine*.
- JESSE HARRISON EPPERSON, B.S., *Lecturer in Preventive Medicine and Public Health*.  
B.S., Okla., 1914; Health Officer, Durham City and County, 1922; 1930—
- D. M. WILLIAMS, B.S., *Lecturer in Preventive Medicine and Public Health*.  
B.S., North Carolina, 1910; Superintendent of Water and Sewer Dept., Durham, N. C.
- H. POPE, A.B., A.M., Ph.D., *Assistant Professor of Bacteriology*.

*Preventive Medicine and Public Health.* In the freshman year there are four lectures given to provide some basic orientation predicated upon the fact that disease has a community as well as a personal aspect and that the social component of illness is an important force in the work of the doctor as well as in the life of the community. The student is introduced to disease as a mass or community problem and to medicine as a social institution.

In the sophomore year there is a series of lectures and discussions, totaling fifty-two hours, which outline in some detail the interrelationships between medicine and society. This course attempts to provide an understanding of the general principles governing the circumstances under which disease occurs and also the general principles used in the development of measures aimed at the control of disease, both communicable and non-communicable. The effect of the physical environment on human health is briefly discussed with special emphasis on the relationship of the practicing physician to environmental control programs and policies. An overview is given of the basic health problems at the various stages of life.

In alternate years, the senior and junior students meet together for eleven one-hour sessions. These sessions are devoted to discussions of the application of the principles of preventive medicine as they can be applied by the physician in private practice. Attention is also directed to the role of community health and welfare agencies as adjuncts to the physician in the management of his individual patient. The care method of presentation and study is used, with groups of students acting as the panel of experts.

*Medical Parasitology.* This is a lecture and laboratory course given one morning a week in the fourth quarter. Most of the emphasis is placed on the symptomatology, diagnosis and therapy of the various helminthic and protozoal diseases in man; several periods are devoted to medical entomology.

## *Legal Medicine and Toxicology*

HAYWOOD M. TAYLOR, *Professor of Toxicology and Associate Professor of Biochemistry.*

J. B. BRADWAY, *Professor of Law.*

E. C. BRYSON, *Associate Professor of Law.*

W. D. FORBUS, *Professor of Pathology.*

D. T. SMITH, *Professor of Bacteriology and Associate Professor of Medicine.*

This course embraces a discussion of the relation of physicians to legal criminal procedures, jurisdiction of the coroner and medical examiner, laws governing the dead human body, personal identity of the living, and the dead, the medicolegal autopsy, traumatic injuries and fractures, rape, abortion, asphyxial death, homicidal, suicidal, and industrial poisoning, alcoholism, the examination of blood, stains, fibers, and the detection of malingering. This course is open to junior and senior students and is given in alternate years. Discussions of medicolegal problems for the house staff and senior students, and joint conferences of the medical and law students also are held.

## *Undergraduate Cancer Training Program*

(Supported by a grant in aid from the U. S. Public Health Service.)

### STAFF

*Coordinator:* WILEY D. FORBUS, M.D.

#### *Operating Committee:*

CLARENCE E. GARDNER, M.D., *Professor of Surgery.*

WAYNE RUNDLES, M.D., *Associate Professor of Medicine.*

BAYARD CARTER, M.D., *Professor of Obstetrics and Gynecology.*

GEORGE BAYLIN, M.D., *Professor of Radiology.*

*Social Service Worker:* ISABEL PELTON.

During the senior year, the students in surgery participate in the teaching sessions held by the Undergraduate Cancer Training Program staff and the senior staff. These sessions are held five days a week, and an attempt is made to cover systematically the various regions in the body in respect to the tumors which arise in them. The viewpoints of the clinician, the radiologist, and the pathologist are presented and correlated at this time. The students themselves prepare seminars on subjects which have a direct bearing on the problem of neoplasia in general. This portion of the program is scheduled for the second and third quarters.

In addition, the Undergraduate Cancer Training Program staff

participates in the teaching of neoplasia to the sophomore students. This is done as a supplementary program to the students as they are being taught the principles of neoplastic disease by the Department of Pathology. New material is presented to them and here the clinico-pathological approach to the problem of neoplasia has special emphasis. In this phase of the program those regions of the body in which the frequency of tumors is highest are selected for study. This program is supplemented by a course for third and fourth year students in surgical pathology with emphasis upon the tumors of the individual organs. This course is given during the first quarter and requires four hours per week.



# Committees of the School of Medicine



## COMMITTEE ON HEALTH AFFAIRS

See page 2.

## COMMITTEE ON THE CURRICULUM

J. S. HARRIS  
(*Chairman*)  
N. F. CONANT

DERYL HART  
HANS LOWENBACH

J. E. MARKEE  
E. A. STEAD, JR.

## COMMITTEE ON THE LIBRARY

MRS. J. C. TRENT  
(*Chairman*)

F. W. BERNHEIM  
F. L. ENGEL

BAYARD CARTER  
WILL C. SEALY

## COMMITTEE ON ADMISSION

J. E. MARKEE  
(*Chairman*)  
MRS. F. H. SWETT  
(*Secretary*)

N. F. CONANT  
J. P. HENDRIX  
G. L. ODOM

K. E. PENROD  
S. P. MARTIN

## BEAUMONT COMMITTEE

J. W. BEARD  
(*Chairman*)

DERYL HART

D. T. SMITH

## COMMITTEE ON STUDENT TECHNICIANS

H. M. TAYLOR  
(*Chairman and  
Director*)

D. T. SMITH  
WAYNE RUNDLES

GEORGE MARGOLIS  
(*Associate Director*)

## COMMITTEE ON THE OUT-PATIENT CLINIC

J. M. RUFFIN  
(*Chairman*)

C. E. GARDNER, JR.

F. R. PORTER

## COMMITTEE ON HOSPITAL RECORDS

J. L. CALLAWAY  
(*Chairman*)  
L. D. BAKER  
\*F. R. PORTER

J. HARNED BUFKIN  
H. MILDRED CRAWLEY  
C. E. GARDNER, JR.

W. L. THOMAS, JR.  
LESLIE B. HOHMAN  
J. S. HARRIS

## COMMITTEE ON MEDICAL ART AND ILLUSTRATION

J. W. BEARD  
(*Chairman*)

J. E. MARKEE

## COMMITTEE ON PHYSICAL THERAPY

L. D. BAKER  
(*Chairman*)  
F. G. HALL

HELEN L. KAISER  
E. L. PERSONS

\*F. R. PORTER  
ELLEN HUCKABY

## COMMITTEE ON SOCIAL SERVICE

W. M. NICHOLSON  
(Chairman)

E. L. PERSONS  
\*F. R. PORTER

K. S. GRIMSON  
JANET WIEN

## COMMITTEE ON THE BORDEN AWARD

J. E. MARKEE  
(Chairman)

K. S. GRIMSON  
J. P. HENDRIX

K. LER. PICKRELL

## HOSPITAL ADMINISTRATIVE COMMITTEE

\*F. ROSS PORTER  
(Chairman)  
BAYARD CARTER  
W. C. DAVISON  
DERYL HART

W. D. FORBUS  
ELSIE W. MARTIN  
L. B. HOHMAN  
J. M. PYNE

D. T. SMITH  
E. A. STEAD, JR.  
FLORENCE K. WILSON  
DEWITT WRIGHT

## COMMITTEE OF THE DURHAM VETERANS HOSPITAL

J. D. MYERS  
(Chairman)  
G. J. BAYLIN  
W. C. DAVISON

W. D. FORBUS  
DERYL HART  
G. MARGOLIS  
R. J. REEVES

N. F. ROSS  
W. W. SHINGLETON  
G. A. SILVER  
E. A. STEAD, JR.

## COMMITTEE ON THE TRENT PRIZE

J. E. MARKEE  
(Chairman)

BAYARD CARTER

C. E. GARDENER, JR.

\* On leave of absence until 1 January 1954.

# Staff of Duke Hospital



## ADMINISTRATIVE AND TECHNICAL STAFF

- \*F. ROSS PORTER, A.B., *Superintendent and Professor of Hospital Administration.*  
J. MINETREE PYNE, B.S., *Assistant Superintendent and Associate in Hospital Administration.*  
LOUIS E. SWANSON, A.B., *Assistant Superintendent and Associate in Hospital Administration.*  
DEWITT WRIGHT, B.S., J.D., *Assistant Superintendent and Associate in Hospital Administration.*  
E. ALLISON HERRON, A.B., *Administrative Assistant.*  
ANNE S. GARRETT, A.B., *Personnel Officer.*  
C. H. COBB, Ph.G., *Business Manager, Medical Division.*  
HENRY BERTRAND, B.B.A., B.S., *Assistant Business Manager, Medical Division.*  
E. S. RAPER, A.B., *Business Manager, Surgical Division.*  
R. N. CRENSHAW, *Assistant Business Manager, Surgical Division.*  
WATSON S. RANKIN, M.D., D.Sc., *Visiting Lecturer in Hospital Administration.*  
MARSHALL I. PICKENS, A.B., M.A., *Associate in Hospital Administration.*  
CHARLES E. PRALL, A.B., M.A., Ph.D., *Visiting Lecturer in Hospital Administration.*  
GEORGE P. HARRIS, A.B., *Instructor in Hospital Administration.*  
JAMES R. FELTS, JR., *Instructor in Hospital Administration.*  
WILLIAM A. TAYLOR, A.B., *Assistant in Administration.*  
ERIE L. FISCHER, A.B., *Assistant in Administration.*  
KIRK OGLESBY, A.B., *Assistant in Administration.*  
JOHN A. MCBRYDE, A.B., *Assistant in Administration.*  
CHARLES C. BOONE, A.B., *Assistant in Administration.*  
WILLIS THRASH, A.B., *Assistant in Administration.*  
J. A. SKARUPA, A.B., *Assistant in Administration.*  
GUY N. CROMWELL, A.B., *Assistant in Administration.*  
RUSSELL L. DICKS, A.B., B.D., D.D., *Chaplain.*  
LELIA CLARK, R.N., B.S., M.A., *Director of Nursing Service.*  
ELSIE WILSON MARTIN, A.B., M.S., *Director and Professor of Dietetics.*  
ERMA L. ADAMS, A.B., C.P.A., *Accountant and Administrative Assistant Dietitian.*  
I. THOMAS REAMER, Ph.G., *Pharmacist and Associate in Pharmacy.*  
JESSIE LEE SMITH, B.S., *Assistant Pharmacist.*  
REBA NEW HOBGOOD, *Public Dispensary.*  
JUDITH FARRAR, A.B., B.S., *Librarian and Assistant Professor of Medical Literature.*  
MILDRED P. FARRAR, A.B., *Assistant Librarian.*  
CHARLES RONALD STEPHEN, B.Sc., M.D., C.M.D.A., *Chief Anesthetist and Professor of Anesthesiology.*  
MARY B. CAMPBELL, R.N., M.A.A.N.A., *Chief Nurse Anesthetist.*  
ROBERT JAMES REEVES, A.B., M.D., *Chief Radiologist and Professor of Radiology.*  
JANET WIEN, A.B., M.S., *Director and Assistant Professor of Social Service.*

\* On leave of absence until 1 January 1954.

JESSIE HARNED BUFKIN, *Record Librarian and Assistant Professor of Medical Record Library Science.*

ELON HENRY CLARK, *Artist and Professor of Medical Art and Illustration.*

ROBERT BLAKE, *Assistant Artist and Instructor in Medical Art and Illustration.*

HENRY F. PICKETT, *Assistant Artist and Instructor in Medical Art and Illustration.*

BERT R. TITUS, *Braces and Instruments and Technical Instructor in Orthosis.*

HELEN LOUISE KAISER, R.P.T., *Director and Assistant Professor of Physical Therapy.*

ELIZABETH WAGGONER, *Occupational Therapist.*

#### HOSPITAL AND OUT-PATIENT CLINIC TEACHING, RESIDENT AND INTERN TEACHING STAFF

See Departmental lists, pages 18-53.

### *Internships and Residencies*

Internships of twelve months' duration with room, board, laundry, and uniforms furnished but without salary, are available in medicine, surgery (including general surgery, urology, orthopaedics, plastic, anesthesia, thoracic- and neuro-surgery), orthopaedics, urology, otolaryngology-ophthalmology, dentistry, obstetrics and gynecology, endocrinology, pediatrics, neuropsychiatry, and pathology commencing July first.

Application blanks for all internships may be obtained by writing to the Superintendent, Duke Hospital, Durham, N. C. Graduates of any Class A medical school are eligible for internships. Duke Hospital participates in the matching plan of the National Interassociation Committee on Internships.

After the completion of an internship in Duke Hospital or in another acceptable hospital, a certain number may be appointed as assistant residents in medicine, surgery, obstetrics and gynecology, pediatrics, psychiatry, neurology, dermatology, orthopaedics, urology, otolaryngology, ophthalmology, roentgenology, anesthesiology, pathology, biochemistry, or the Student Health Service or as fellows of the Private Diagnostic Clinic, at a salary of \$250 to \$500 per year with maintenance, and eventually may be promoted to the residency in the various departments or subdepartments of the Hospital at an annual salary of \$500 to \$1,000 with maintenance. Applications should be made to the head of the department concerned.

The Hospital and School of Medicine are an integral part of the Duke University campus, and its educational, recreational, and athletic facilities are available for the Resident Staff.

The present Resident Staff of one hundred ten consists of a resident, twelve assistant residents, and nine interns in medicine; a resident and two assistant residents in dermatology and syphilology; an assistant resident in neurology; a resident, two assistant residents and three interns in psychiatry; a resident, five assistant residents, and

thirteen interns in surgery (the five assistant residents are assigned in rotation to general surgery, plastic, thoracic, neuro-surgery, and pathology); a resident, two assistant residents, and one intern in otolaryngology and ophthalmology; a resident and one assistant resident in orthopaedics; a resident and one assistant resident in urology; a resident and one assistant resident in plastic surgery; a resident, four assistant residents, and three interns in obstetrics and gynecology; a resident and one intern in endocrinology; a resident, three assistant residents, and eight interns in pediatrics; three interns in obstetrics and pediatrics; two residents and four assistant residents in radiology; a resident, two assistant residents, and three interns in pathology; four assistant residents in anesthesiology, and eight in hospital administration.

### *Postgraduate Study*

Graduates in medicine are welcomed at the various clinics and demonstrations in medicine, surgery, obstetrics, and other specialties, which are held from 9:30 A.M. to 12:30 P.M. each Saturday, as well as at the daily ward-rounds in the mornings, and the out-patient clinics in the afternoons. They can start at any time and remain as long as they wish. Additional special work in any department for a period of not less than three months may be arranged by consultation with the head of the department concerned. A certain number of residencies also are available at Duke Hospital in medicine, surgery, obstetrics and gynecology, pediatrics, psychiatry, neurology, dermatology, orthopaedics, urology, otolaryngology, ophthalmology, roentgenology, pathology, and biochemistry. Further information can be obtained by writing to the Dean.

Returning veterans are requested to register on arrival at the Dean's office, and with Mr. Oscar Petty, Jr., 303 Administration, who will assist them in applying for Veteran's benefits.



# Medical Service Courses at Duke Hospital



## *Hospital Administration*

Eight internships in hospital administration leading to a certificate are available to university graduates whose character, tact, and ability for leadership are good, and whose academic standing is high. These internships are of two years' duration and pay a small salary in addition to room, board, and laundry. Vacations of two weeks are allowed during each year of internship.

The instruction is practical rather than theoretical in emphasis. The interns are rotated through seven different assistant administrative positions in the Hospital. There is also a weekly seminar lasting two hours and two classes lasting one hour each during the week.

The interns may register in the Graduate School of Duke University, and receive the A.M. degree after the successful completion of a thesis and twenty-four semester hours of university courses in various fields. This additional work will add one year to the program. Further information may be obtained by writing to the Superintendent, Duke Hospital, Durham, N. C.

## *Nursing*

FLORENCE K. WILSON, R.N., B.A., M.A., *Dean of the School of Nursing and Professor of Nursing Education.*

B.A., Univ. of Mich., 1913; R.N., City Hospital Sch. Nursing, N. Y., 1920; M.A., West. Res. Univ., 1930.

LELIA R. CLARK, R.N., B.S., M.A., *Director of Nursing Service and Assistant Professor of Nursing Education.*

R.N., Phila. Mt. Sinai Hosp. Sch. Nursing, 1932; B.S., Columbia, 1948; M.A., Columbia, 1949.

CLARA S. DONASZEWSKI, R.N., B.S.N.Ed., *Director of Practical Nursing Division.*

R.N., Emory University, 1935; B.S.N.Ed., Duke, 1951.

WINIFRED M. PARKER, R.N., B.S., N.Ed., *Assistant Director of Practical Nursing Division.*

R.N., Stuart Circle Hospital, 1949; B.S.N.Ed., Duke, 1951.

*Practical Nursing Division of the Vocational Education Department of the Durham City Schools, Duke Unit:* After three months of classroom instruction at the Hillside High School, nine months are spent in classes and practical training at Duke Hospital. At the com-

pletion of this course, the student receives a certificate in practical nursing and is eligible for licensure as a practical nurse in North Carolina.

*School of Nursing:* Information may be obtained by writing to the Dean of the School of Nursing, Hanes House, Duke University, Durham, N. C.

## *Dietetics*

ELSIE W. MARTIN, A.B., M.S., *Director and Professor of Dietetics.*

A.B., Whitman, 1913; M.S., Teachers Coll., Columbia, 1927; Prof. of Home Economics, Puget Sound, 1915-1917; Dietitian, Univ. of Iowa Hosp., 1919-1920, and Charles T. Miller Hosp., St. Paul, Minn., 1920-1926; Admin. Dietitian, Lakeside Hosp., Cleveland, 1927-1930; *Director of Dietetics, Duke Hospital, 1930—*

ELIZABETH YEARICK, B.S., M.S., *Teaching and Clinic Dietitian, Assistant Director.*

ERMA LEE ADAMS, A.B., C.P.A., *Accountant and Assistant Director.*

GLORIA KICKLIGHTER, B.S., *Therapeutic Dietitian.*

DOLLY R. LILES, B.S., *Therapeutic Dietitian.*

BARBARA C. CRANE, B.S., *Administrative Dietitian.*

RUBY E. DAVENPORT, B.S., *Administrative Ward Dietitian.*

BETTY SHUMATE, B.S., *Assistant Administrative Dietitian.*

ELIZABETH LOVE, *Assistant Administrative Dietitian.*

BETTY A. BARNARD, *Assistant Therapeutic and Teaching Dietitian.*

In addition to the dietetic training of the students of the Schools of Medicine and Nursing, fourteen dietetic interns may be admitted to the School of Dietetics and given the certificate of graduate dietitian after the successful completion of one year's internship. The entrance requirements are a Bachelor's degree from an approved university or college, with majors in nutrition and institutional management, and the courses in chemistry, biology, social science, and education recommended by the American Dietetic Association. The course for dietetic interns provides instruction in all phases of hospital and institutional dietetics, including experience from the buying and storage of food to its service to the patients according to the physician's orders. Interns may apply some of their time in securing graduate credit.

The course starts the first of September. All students pay a registration fee of \$10 at the time of appointments. Additional fees are charged if the intern takes additional work in the University for an advanced credit. Maintenance is provided. More detailed information and application blanks may be obtained from the Professor of Dietetics, Duke University School of Dietetics, Durham, N. C.

## *Social Service*

JANET WIEN, A.B., M.S., *Director and Assistant Professor of Social Service.*

A.B., Radcliffe, 1935; M.S., Simmons, 1944; Medical Social Worker, Grace-New Haven Community Hospital, 1944-1949; *Director of Social Service, Duke Hospital, 1949—*

SARA HARRIETTE AMEY, A.B., *Assistant in Social Service.*

DOLORES GENRE BROWN, A.B., M.S.W., *Assistant in Social Service.*  
 MARJORIE LEE BARDENIER, A.B., M.A., *Assistant in Social Service.*  
 JENNIE EFIRD HARRIS, A.B., M.S., *Assistant in Social Service.*  
 ROSALYN BRUNSON LIGHTSEY, A.B., M.S.W., *Assistant in Social Service.*  
 DOROTHY M. JOHNSON, A.B., M.S.W., *Assistant in Social Service.*  
 MARJORIE LEE GARDENIER, A.B., M.A., *Assistant in Social Service.*  
 DOROTHY OVERTON POST, B.S.S.W., M.S.S.W., *Assistant in Social Service.*  
 JEANETTE SCHAEFER REARDON, A.B., M.S.W., *Assistant in Social Service.*  
 ELIZABETH TAYLOR WILSON, A.B., M.S.W., *Assistant in Social Service.*  
 MARTHA REID ZEALY, A.B., *Assistant in Social Service.*

Medical and psychiatric social casework service is offered to patients referred by personnel within the Hospital, and by interested individuals and health and welfare agencies outside of the Hospital. Assistance and advice in connection with the problems presented are available to the members of the Staff and referring agencies.

The division also assists in teaching social and environmental aspects of illness and medical care through consultations and lectures to the students of the Schools of Medicine and Nursing. In addition, it serves as an agency for supervised field work for students of the Graduate School of Social Work of the University of North Carolina. Further information concerning training for advanced students may be obtained from the Social Service Division, Duke Hospital, Durham, North Carolina.

## *Anesthesiology*

CHARLES RONALD STEPHEN, B.S., M.D.C.M., D.A., *Professor of Anesthesiology and Chief of Division of Anesthesiology.*

B.S. and M.D.C.M., McGill University, 1938 and 1940; Int., Rotat., Montreal General Hosp., 1940-1941; Res. in Med., Jeffrey Hale's Hosp., Quebec City, Que., 1941-1942; Major, Royal Canadian Army Medical Corps, 1942-1946; Ass't. Res., Res. in Dept. of Anes., McGill Univ. School of Anes., December 1942-March 1943; Course in Anes., Royal Infirmary, Oxford; Anesthetist to Montreal Neurological Institute, June 1946-July 1947; Director, Dept. of Anes., Children's Memorial Hosp., Montreal, August 1947-June 30, 1950; Lecturer, Dept. of Anes., McGill Univ., August 1947-August 1949; Ass't. Prof., Dept. of Anes., McGill Univ., August 1949-June 30, 1950; *Anesthetist, Duke Hospital, 1950—*

RUTH CAMPBELL MARTIN, B.A., M.D., *Assistant Professor of Anesthesiology.*

B.A., Texas Christian, 1937; M.D., Washington Med. School, St. Louis, Mo., 1941; Int., Rotat., Deaconess Hosp., St. Louis, Mo., 1941-1942; Ass't. Res., Res. and Instr. in the Dept. of Anes., Billings Hosp., 1942-1944; *Associate Anesthetist, Duke Hospital, 1944—*

WILLIAM KURK NOWILL, B.A., M.D., *Assistant Professor of Anesthesiology.*

B.A., M.D., Univ. of Buffalo, 1938, 1944; Rot. Int., Ogden Mem. Hosp., Elmira, N. Y., 1944-45; Capt., U. S. A., M. C., 1945-47; Res., Anes., Univ. Buffalo Sch. of Med., 1948-50; Priv. Prac., Anes., 1950-51; *Assistant Anesthetist, Duke Hospital, 1951—*

MARY B. CAMPBELL, R.N., M.A.A.N.A., *Chief Nurse Anesthetist, in Charge of Anesthesiology for Nurses.*

R.N., St. Luke's Hosp., 1937; Certificate in Anesthesia, Duke Hosp., 1943; *Nurse Anesthetist, Duke Hospital, 1943—*

EVELYN E. AULD, R.N., M.A.A.N.A., *Instructor in Anesthesiology.*

R.N., Johns Hopkins Hosp., 1929; Certificate in Anesthesia, Duke, 1932; Instructor in Anesthesia, Duke, 1944-1949; Chief, Division of Anesthesia, Watts Hosp., 1949—; Instructor, Duke, 1950—

A. FRANCIS ROWLAND, R.N., M.A.A.N.A., *Assistant in Anesthesiology.*

MARTHA BROWN, R.N., M.A.A.N.A., *Assistant in Anesthesiology.*

LOLA A. GLENN, R.N., M.A.A.N.A., *Assistant in Anesthesiology.*

EMILY S. KIRKLAND, R.N., M.A.A.N.A., *Assistant in Anesthesiology.*

#### GRADUATE STUDENTS (HOUSE STAFF)

##### RESIDENTS AND ASSISTANT RESIDENTS IN ANESTHESIOLOGY

HELEN ELIZABETH HALL, M.D., Med. Coll. of Virginia, 1950.

MARVIN ARTHUR BOWERS, M.D., Univ. of Louisville, 1950.

ROBERT WILLIAM BORDERS, M.D., Univ. of Kansas, 1950.

NOBORU TAKESHIMA, B.M., Nagoya Univ., 1950.

PATRICIA GRACE BOHAN, M.D., McGill University, 1951.

A two- to three-year residency training program in Anesthesiology is available for physicians who are graduates of a Class A medical school and who have completed an internship in an accredited hospital. This is an approved residency which after two years qualifies the resident to take the American Board examinations. Applicants are accepted January 1st and July 1st. Opportunities are provided to employ all the varied techniques and agents utilized in anesthesia. Emphasis is placed on knowledge of the various diagnostic and therapeutic nerve blocks, and opportunity is provided to learn the standard regional nerve block procedures. Facilities are available for clinical and experimental research. Seminars are held twice a week for theoretical instruction and review of interesting cases and journals.

Courses available to graduate nurses include an eighteen months' course for nurses who have had no experience in anesthesia, and a nine to twelve months' course for nurses who have had five years of practical experience but no formal training in the specialty. Instruction embraces the theoretical aspects and clinical application of all drugs and techniques in accepted usage. The program is divided into quarters. The major part of the basic theoretical instruction is given during the first three quarters. After a pre-clinical period of eight weeks, clinical practice runs parallel with the theoretical program. One class is accepted annually and enrolled on January 15. All appointments for the current year are made by September 1 of the preceding year. Graduates of these courses are eligible to take the examination given by the American Association of Nurse Anesthetists. Tuition is \$150.00 and \$100.00 respectively. Additional information concerning these programs for nurses may be obtained from Mary B. Campbell, R.N., Box 3094, Duke Hospital, Durham, North Carolina.

## *Laboratory Technique*

HAYWOOD MAURICE TAYLOR, B.S., M.S., Ph.D., *Professor of Toxicology and Associate Professor of Biochemistry (Director)*.

GEORGE MARGOLIS, A.B., M.D., *Assistant Professor of Pathology (Associate Director)*.

DAVID TILLERSON SMITH, A.B., M.D., *Professor of Bacteriology and Associate Professor of Medicine*.

OSCAR CARL EDVARD HANSEN-PRÜSS, A.B., M.D., *Professor of Medicine in Charge of Clinical Microscopy*.

DUNCAN CHARTERIS HETHERINGTON, A.B., M.A., Ph.D., M.D., *Professor of Anatomy*.

NORMAN FRANCIS CONANT, B.S., A.M., Ph.D., *Professor of Mycology and Associate Professor of Bacteriology*.

RALPH WAYNE RUNDLES, A.B., Ph.B., M.D., *Associate Professor of Medicine*.

IVAN W. BROWN, JR., A.B., B.S., M.D., *Assistant Professor of Surgery*.

MARY ALVERTA POSTON, A.M., *Associate in Bacteriology*.

HOYLE W. CRAIG, *Technical Associate in Bacteriology*.

PRESTON W. SMITH, *Technical Associate in Hematology*.

LEO B. DANIELS, *Technical Associate in Biochemistry*.

The course in laboratory technique, which includes training in blood chemistry, clinical microscopy, bacteriology, serology, basal metabolism, etc., is approved by the Registry of Technicians of the American Society of Clinical Pathology. The course lasts twenty-one months, the next class starting September, 1952. The registration fee is \$300 which includes tuition, student health and diploma fee for the entire course. There are no additional fees except for breakage. Other student activity fees are optional. The students live in town at their own expense. A minimum of two years of approved college work is required. The degree of B.S. in Medical Technology is awarded upon successful completion of the course. Information as to the specific requirements may be obtained from Dr. Haywood M. Taylor, Duke Hospital, Durham, N. C.

## *X-Ray Technology*

ROBERT JAMES REEVES, A.B., M.D., *Professor of Radiology and Chairman of the Department*.

GEORGE JAY BAYLIN, A.B., M.D., *Professor of Radiology and Associate in Anatomy*.

JOSEPH A. BOYD, A.B., M.D., *Assistant Professor of Radiology*.

JOHN B. CAHOON, JR., R.T., A.S.X.T., *Technical Instructor in Radiology*.

BETTY MASTERSON, R.T., *Technical Instructor in Radiology*.

The course in x-ray technology includes training in radiographic technique. The curriculum has been planned with the thought of giving the student x-ray technician a basic knowledge of the principles



involved along with an introduction to the technical aspects of roentgenography. Applicants for training in x-ray technology should satisfy one of the following requirements: two years of approved college work, graduate nurse, or special student without either of these requirements who might be appointed by the committee. The course is of twelve months' duration and the following subjects are presented: processing x-ray films, dark room technique, elementary anatomy and physiology, general physics, radiographic technique, and radiation physics. Students are admitted on March 1 and October 1 each year. The tuition fee is \$25.00. No maintenance is provided, therefore it is necessary that the students live in town at their own expense. At the end of six months, if the student's work has been unsatisfactory, the student is advised to withdraw from the course. The department reserves the right to dismiss a student at any time. A passing grade of 75 per cent must be maintained in each subject. A certificate is awarded to those who have successfully completed the course. The course is approved by the Council on Medical Education, American Medical Association, American College of Radiology and the American Society of X-ray Technicians. Information as to specific requirements may be obtained from the Professor of Radiology, Duke Hospital, Durham, N. C.

### *Physical and Occupational Therapy Rehabilitation*

HELEN LOUISE KAISER, R.P.T., *Director and Assistant Professor of Physical and Occupational Therapy Rehabilitation.*

MARY C. SINGLETON, B.S., R.P.T., *Instructor in Physical Therapy.*

SALLY JEAN WILHOIT MCBRYDE, A.B., R.P.T., *Instructor in Physical Therapy.*

\*\*BEATRICE A. BOERICKA, B.A., R.P.T., *Assistant in Physical Therapy.*

ENOLA S. FLOWERS, B.S., R.P.T., *Assistant in Physical Therapy.*

RUTH CADBURY RICHARDSON, A.B., M.A., R.P.T., *Assistant in Physical Therapy.*

WINIFRED WILLIAMS, B.A., R.P.T., *Assistant in Physical Therapy.*

GRACE CUNNINGHAM, B.S., R.P.T., *Assistant in Physical Therapy.*

\*JEAN GOVEON, M.C.S.P., *Assistant in Physical Therapy.*

REBECCA HOLTON SPAUGH, A.B., R.P.T., *Assistant in Physical Therapy.*

INGRID SINERO, R.P.T., *Lecturer in Physical Therapy.*

ELIZABETH R. WAGGONER, B.S., O.T.R., *Occupational Therapist.*

A fifteen months' course in physical therapy is offered for men and women graduates of accredited schools of physical education and nursing, and for selected applicants who have completed ninety college semester hours, including credit in the biological sciences, physics, chemistry and psychology. The curriculum provides instruction in anatomy, physiology, kinesiology, pathology, psychology, electrother-

\* Member of Chartered Society of Physiotherapy, England.

\*\* On leave of absence.

apy, neuropsychiatry, therapeutic exercise and the principles of rehabilitation. Instruction in the clinical subjects is given by members of the faculty of the School of Medicine. Clinical training will be given at Duke Hospital and affiliated institutions and includes supervision of orthopaedic problems in the Durham Public Schools. The course starts in October. The tuition fee is \$350 plus \$35 for medical fee, and does not include maintenance. A certificate is awarded upon successful completion of the course. Twenty hours of credit may be earned toward the baccalaureate degree.

In addition to the above, a six months' course in the Psychosomatic Aspects of Physical Therapy is given to registered graduate physical therapists. The course includes a study of personality structure, adjustment, tensions, anxiety and their relation to patient behavior and management. The tuition fee is \$150.00. A certificate is awarded. Courses are given to the students of the Schools of Medicine and Nursing. Further information and application blanks may be obtained from the Division of Physical Therapy, Duke Hospital, Durham, N. C.

Occupational Therapy in the form of creative, manual, educational and recreational activities is offered to patients upon referral by their physicians. These activities are adapted to the specific remedial need of the individual patient. The division serves as a clinical training center for students from Occupational Therapy schools.

### *Medical Record Library*

J. HARNED BUFKIN, R.N., R.R.L., *Assistant Professor of Medical Record Library Science.*

BETTY S. WIGGINS, A.B., R.R.L., *Assistant Medical Record Librarian.*

A twelve months' course for the training of medical record librarians which has been given full approval of the American Association of Medical Record Librarians and the American Medical Association, includes three months of classes and nine months of internship with rotation through inter- and extra-departmental stations. Applicants are judged individually for eligibility, and education, training, and experience are all taken into consideration. The curriculum provides instruction in the theory of medical record library science, and an introduction to anatomy, physiology, pathology, medical and operative terminology, and medical diction. Instruction is given by members of the faculty of the School of Medicine, with special lectures on hospital management and correlation of various hospital departments, as well as seminars on legal aspects and administrative uses of medical case records. Internship includes application of class work in actual

practice and covers all phases of medical record library work. The course starts in October. The tuition fee is \$175.00 and does not include maintenance. A certificate is awarded upon successful completion of the course. Applications may be made to the Medical Record Librarian, Box 3307, Duke Hospital, Durham, N. C.

## *Medical Art and Illustration*

ELON H. CLARK, *Professor of Medical Art and Illustration.*

Rochester Institute of Technology, 1927-1930; Johns Hopkins School of Medical Art, 1930-1933; Instructor, Medical Art, 1933-1934; Chief, Medical Art and Photography, Veterans Administration, 1949 (leave of absence); *Chairman, Medical Art and Illustration, Duke, 1934—*

HENRY F. PICKETT, *Instructor in Medical Art and Illustration.*

ROBERT L. BLAKE, *Instructor in Medical Art and Illustration.*

GEORGE LYNCH, *Medical Artist.*

ROBERT BEACH, *Medical Artist.*

REMIE ROSS-DUGAN, *Letter Artist.*

RAYMOND HOWARD, *Medical Photographer.*

NEALLY WEBSTER, *Medical Photographer.*

WEAVER TRIPP, *Medical Photographer.*

ILSE EBERT, *Assistant Photographer.*

The function of this Division is to produce, for staff members allied to medicine, visual aids by way of various art and photographic methods. These visual aids are used to enhance the medical records and to aid in research and education. Services offered by this Division are: 1. Medical Art: Illustrations, by means of various artistic techniques, depicting anything perceptible to the eye, the existing but unseen and even the theoretical, as well as mechanical drawings, diagrams, charts, graphs, lettering, casts, models, exhibits, etc. 2. Medical Photography: Illustrations of anything to which available photographic equipment will respond. This Division produces still and motion pictures, microphotographs, pictures of the retinae, photographic copies, film strips, lantern slides, enlargements and contact prints. Services offered directly for the patients' benefit are: Production of various types of anatomical prostheses and instruction in the use of opaque cosmetics. Facilities for individual training in specific techniques or methods employed by this Division are available. No academic credit is given. Prerequisites, tuition, time and type of training are determined by the Chairman of this Division. No regular courses of instruction in medical art and photography or their allied fields are offered.

# School of Medicine Students



(At beginning of autumn quarter, September 29, 1952)

	First-Year	Second-Year	Junior Year	Senior Year	Total	1932-1952 Graduates
Students	78	76	80	81	315	1,330

## FIRST-YEAR STUDENTS

Allison, Ronald Eugene (Duke University), Shaker Heights, Ohio.  
 Barton, Dewey Lockwood (Bates College), Hasbrouck Heights, N. J.  
 Benson, Gordon Donald (Drake University, University of Minnesota), Red Lake Falls, Minn.  
 \* Bootle, William Augustus, Jr. (Emory University, Mercer University), Macon, Ga.  
 Brown, Edward Brooking (Duke University), Scranton, Pa.  
 Bryan, William Blair (Wake Forest College), Battleboro, N. C.  
 Carmichael, Daniel Erskine (Vanderbilt University, Birmingham Southern), Birmingham, Ala.  
 Carswell, Abel Paul, Jr. (Duke University, University of North Carolina), Durham, N. C.  
 Coffin, Lewis Augustus, III (University of Virginia, New York University), New York, N. Y.  
 Cranford, Harold Davis (University of North Carolina), Asheboro, N. C.  
 Crenshaw, Marion Carlyle, Jr. (Davidson College), Columbia, S. C.  
 Culton, Julian Clark (Guilford College), Charlotte, N. C.  
 Culton, Yancey Golet, Jr. (Guilford College), Charlotte, N. C.  
 Davis, William Alexander, Jr. (Davidson College, North Georgia College), Charlotte, N. C.  
 Deiss, Elmer Andrew, Jr. (Princeton University), Lexington, Ky.  
 Dickinson, William Andrew, Jr. (Virginia Military Institute), Cape Charles, Va.  
 Dorsey, Charles Laing (Virginia Military Institute), Roanoke, Va.  
 Dozier, Laurie Lester, Jr. (University of Miami, University of Florida, Duke University, Florida State University), Tallahassee, Fla.  
 Easterling, James Frank (University of North Carolina), Rocky Mount, N. C.  
 Failing, Robert Mayo (Western Carolina Teachers College, University of North Carolina), San Marino, Calif.  
 Foster, Richard Sparre (Duke University), Washington, D. C.  
 Fredericks, Richard Niel (Duke University), Miami Beach, Fla.  
 Gehweiler, John Andrew, Jr. (Duke University), Jamaica, N. Y.  
 Gibson, James Franklin (Duke University), Wilmington, N. C.  
 Griffin, Harvey Lee, Jr. (University of North Carolina), Asheboro, N. C.  
 Hardison, Joseph Hammond, Jr. (Sewanee Military Academy, Duke University), Raleigh, N. C.  
 Harley, Eugene Lincoln (Bates College), Cranston, R. I.  
 Hassler, William Lada (Duke University), Shaker Heights, Ohio.  
 Hollett, Alan Norton (Duke University), Wilmington, Del.  
 Howard, Robert Mackay (Duke University), Savannah, Ga.  
 Hutchin, Peter (Duke University), Cleveland, Ohio.  
 Jackson, James Robert (Wake Forest College), Fayetteville, N. C.  
 Jackson, Joseph Hoyt, Jr. (Centenary College, Louisiana State University, Duke University), Shreveport, La.  
 Johnson, Douglas Marion (Emory University), Durham, N. C.  
 Josefiak, Eugene Joseph (St. Joseph's College, University of Buffalo, Duke University), Durham, N. C.  
 Kent, Horace Smith (Duke University, Arizona State College), Mesa, Ariz.  
 Koger, Edward Richard (University of Florida), Hialeah, Fla.  
 Lang, Frank Alexander (Duke University), Fort Lauderdale, Fla.  
 Lee, Pope Matthews (Duke University), Asheville, N. C.  
 Mangum, Vernon Pressley (University of North Carolina), Hamlet, N. C.  
 Metropol, Harry Jack (Duke University), Manning, S. C.  
 Miller, David Edmond (Duke University), Laurinburg, N. C.  
 Mostellar, Henry Curtis (Duke University), Mobile, Ala.  
 Mundy, Elbert Johnson, Jr. (Duke University), Jacksonville, Fla.  
 Neal, John William (Wake Forest College, University of North Carolina), Monroe, N. C.  
 Newell, Bruce, Jr. (Duke University), Roxboro, N. C.  
 Pearson, Hugh Oliver, Jr. (Wake Forest College), Pinetops, N. C.  
 Pollock, James Harold (Duke University), Westerville, Ohio.  
 Preston, Edna Anne (Woman's College, University of North Carolina), Norfolk, Va.  
 Ratchford, George Rufus, Jr. (Duke University), Gastonia, N. C.  
 Rawlings, Lucy Vaughan (Wake Forest College, Wingate Jr. College, University of Southern California), Conway, N. C.  
 Renault, Adhemar William (Duke University), Miami, Fla.  
 Rollins, Robert LeRoy, Jr. (University of North Carolina), Farmville, N. C.  
 Roseberry, Philip Leon (Duke University), York, Pa.  
 Ross, James Vincent, Jr. (Duke University), Easton, Pa.

\* Withdrew 3 October 1952.



Rutnoski, Peggy A. Johnson (Berea College, Wayne University, University of North Carolina), Burnsville, N. C.  
 Sanford, Virginia Oates (Woman's College, University of North Carolina, Wake Forest College), Greensboro, N. C.  
 Schachter, Jerome Miles (Duke University), Durham, N. C.  
 Shands, Joseph Walter, Jr. (Princeton University), Jacksonville, Fla.  
 Shealy, Clyde Norman (Duke University), Camden, S. C.  
 Shoemaker, Carroll Clifton (Wake Forest College), Raleigh, N. C.  
 Sloan, James Marshall, III (Davidson College), Gastonia, N. C.  
 Steele, Richard Austin (Wake Forest College, Duke University), Asheville, N. C.  
 Steiner, Sheldon Haskell (New York University), New York, New York.  
 Sterling, Lehman Newell (Duke University), Broomall, Pa.  
 Tanaka, Shin (Duke University), Durham, N. C.  
 Townsend, James Joye (Duke University), Jacksonville, Fla.  
 Turner, John Calhoun (Duke University), Fair Bluff, N. C.  
 Vance, Thomas Doyle (Duke University), Spruce Pine, N. C.  
 Walton, George Britain, Jr. (University of North Carolina), Chadbourn, N. C.  
 Whanger, Alan Duane (Duke University), Cleveland, Ohio.  
 Whitaker, Harry Applewhite (Davidson College), Rocky Mount, N. C.  
 White, Francis Arthur, Jr. (Harvard University), Mason City, Iowa.  
 Wilbanks, George Dewey, Jr. (University of Florida, Duke University), Tampa, Fla.  
 Wilkinson, Charles Albert (Wake Forest College), Wake Forest, N. C.  
 Wilson, Colon Hayes, Jr. (Duke University), Havelock, N. C.  
 Windom, Robert Emerson (Duke University), St. Petersburg, Fla.  
 Young, Hadley Rasch (The Citadel), Duluth, Minn.

## SECOND-YEAR STUDENTS

Alexander, Gerald Laurence (University of Michigan, Cornell University), Brooklyn, N. Y.  
 Ashbill, David St. Pierre, Jr. (The Citadel), Columbia, S. C.  
 Bell, Norman Howard (Emory University), Gainesville, Ga.  
 Bennett, Paul Clifford, Jr. (Wake Forest College), Kinston, N. C.  
 Bercovitz, Mary Caroline (Duke University), New York, N. Y.  
 Bethune, William Murphy, Jr. (Wake Forest College), Clinton, N. C.  
 Bjerk, Edward Martin (Elon College), Burlington, N. C.  
 Blum, Lawrence Michael (College of William and Mary), Brooklyn, N. Y.  
 Bourland, William Lee (Duke University), Winter Garden, Fla.  
 Bramlett, Charner Williams (The Citadel), Spartanburg, S. C.  
 Breibart, Sidney (College of Charleston), Charleston, S. C.  
 Britt, Benjamin Earl (N. C. State College), Raleigh, N. C.  
 Bynum, Rufus Sisson (University of North Carolina), Potsdam, N. Y.  
 Calvert, Beverly Carver (University of Wisconsin, George Washington University), Los Angeles, Calif.  
 Carver, David Harold (Harvard College), Chestnut Hill, Mass.  
 Chamberlain, Frank Harry (Duke University), West Orange, N. J.  
 Combs, Joseph John, Jr. (University of North Carolina), Raleigh, N. C.  
 Cowan, David Emerson (Davidson College), Burlington, N. C.  
 Cronland, Murphy Alan (Davidson College), Lincolnton, N. C.  
 Crowder, Thomas Harold, Jr. (University of North Carolina), Henderson, N. C.  
 Cupp, Horace B., Jr. (Emory University, East Tennessee State College, University of Tennessee), Mountain Home, Tenn.  
 David, Arthur Kalil, Jr. (University of Florida, Duke University), Jacksonville, Fla.  
 Deyton, Robert Guy, Jr. (Duke University), Brevard, N. C.  
 Dukes, Herbert Trice (Duke University), Tampa, Fla.  
 Farmer, John Lovelace, Jr. (Duke University), Wilson, N. C.  
 Fox, Norman Albright, Jr. (Guilford College), Durham, N. C.  
 Gore, John Pratt (Univ. of Richmond, Clemson College, Wake Forest College), Asheville, N. C.  
 Gore, Tom Winfield (Duke University), Haleyville, Ala.  
 Gorie, John Ashley (Univ. of Calif. at L.A., Stanford University, Univ. of Southern Calif. at L.A.), San Diego, Calif.  
 Goswick, Claude Benjamin, Jr. (Duke University), Durham, N. C.  
 Graham, Frederick William, Jr. (Duke University), Charleston, W. Va.  
 Haim, Liam (Duke University), Durham, N. C.  
 Hilgartner, Margaret Wehr (Bryn Mawr College, Duke University), Baltimore, Md.  
 Ira, Gorden Henry, Jr. (Duke University), Jacksonville, Fla.  
 James, Joseph McCraw, Jr. (University of North Carolina), Wilmington, N. C.  
 James, Robert Earl, Jr. (East Carolina Teachers College), Bethel, N. C.  
 Jelks, Allen Nathaniel (Emory University), Fort Lauderdale, Fla.  
 Johnson, Harry Wallace (Duke University), Weldon, N. C.  
 Johnston, Cyrus Conrad, Jr. (Duke University), Mooresville, N. C.  
 Jones, Edward Lenoir (High Point College, University of N. C.), Charlotte, N. C.  
 Kinneman, Robert Eugene, Jr. (Duke University), Greenfield, Ind.  
 Lang, William Steve, Jr. (Armstrong College, Duke University), Savannah, Ga.  
 Langley, John Thomas (University of North Carolina), Kinston, N. C.  
 Langstaff, Quintus Aden (Johns Hopkins University, Peabody College), Nashville, Tenn.  
 Lipton, Harold Pons (Duke University), Beechurst, L. I., N. Y.  
 McAuley, Eurid Reid, Jr. (University of North Carolina), Charlotte, N. C.  
 McCall, Ben Waring (Duke University), Jacksonville, Fla.  
 Merwarth, Charles Richard (Duke University), Cranford, N. J.  
 Mitchell, David Crerar (Duke University), Grosse Pointe, Mich.  
 Murphy, William Craighill (Vanderbilt University, N. C. State College, University of North Carolina), Kenley, N. C.  
 Neal, Charles Bodine, III (Duke University), Millville, N. J.



Ocker, John McClellan, Jr. (Catholic University of America, Duke University), Durham, N. C.  
 Pagter, Amos Townsend, Jr. (Duke University, George Washington University), Washington, D. C.  
 Pierce, John Arthur (Duke University), Ocean Grove, N. J.  
 Reeves, John Wesley, Jr. (West Virginia University), Fairmont, W. Va.  
 Saunders, Donald Eugene, Jr. (University of South Carolina), Columbia, S. C.  
 Scherlé, Edeline Marie Landstein (Mrs. W. C. Talley), (Instituto de Segunda enseñanza del Vedado, University of Havana), Habana, Cuba.  
 Silver, Donald (Duke University, Asheville-Biltmore Junior College), Asheville, N. C.  
 Simon, Harold (Duke University), Trenton, N. J.  
 Sledge, John Burton, Jr. (Duke University), Rich Square, N. C.  
 Slocumb, Marvin Benton (Mercer University, Duke University), Macon, Ga.  
 Smith, Richard Bowden (Duke University), Durham, N. C.  
 Snow, John Wesley (Duke University, University of Florida), Gainesville, Fla.  
 Spanel, David Louis (Princeton University, University of Pennsylvania), Princeton, N. J.  
 Steagall, Robert Worth, Jr. (Duke University), Charlotte, N. C.  
 Stokes, Thomas Angier, Jr. (University of North Carolina), Durham, N. C.  
 Strauss, Saul (Duke University), Brooklyn, N. Y.  
 Taylor, Everette Lester, Jr. (Washington & Jefferson College, Washington and Lee University, Duke University), Mount Airy, N. C.  
 Thames, Thomas Byron (University of Florida), Miami, Fla.  
 Watson, David Earl (Duke University), Okmulgee, Okla.  
 West, Bryan Clinton, Jr. (Wake Forest College, University of North Carolina), Kinston, N. C.  
 Wiggs, Eugene Overbey (Johns Hopkins University, University of Colorado, George Washington University), Washington, D. C.  
 Wiita, Robert Matthew (Duke University), Monessen, Pa.  
 Wilder, Buna Joe (Duke University), Daytona Beach, Fla.  
 Williams, Dana Steeves (Bates College), Reading, Mass.  
 Young, James Morningstar (Duke University), Massillon, Ohio.

## JUNIOR STUDENTS

Adamson, Jerry Eugene (West Virginia University), New Martinsville, W. Va.  
 Arthur, Robert Miller (George Washington University, University of North Carolina), Hillsboro, N. C.  
 Aycock, William Glenn (Duke University), Fremont, N. C.  
 Ayers, John Clifford, Jr. (Duke University), Nichols, S. C.  
 Barr, Frank Woodworth, Jr. (Davidson College), Charlotte, N. C.  
 Barrett, John Albert, Jr. (Duke University), Mt. Holly, N. C.  
 Bouzard, Walter Carroll (Lenoir-Rhyne College), Durham, N. C.  
 Brandy, Joseph Ralph, Jr. (University of Rochester), Ogdensburg, N. Y.  
 Brewer, John Mickle, Jr. (University of North Carolina), Kershaw, S. C.  
 Brock, Charles Lee (Duke University, Asheville-Biltmore College), Asheville, N. C.  
 Buckley, Charles Edward, III (Virginia Polytechnic Institute), Charleston, W. Va.  
 Carr, Henry James, Jr. (Elon College, Wake Forest College), Roseboro, N. C.  
 Clement, James Edwin (University of North Carolina), Raleigh, N. C.  
 Cohen, Harvey Jay (University of North Carolina), Columbia, S. C.  
 Constantine, Thomas Moore (Duke University), Racine, Wis.  
 Craddock, John Goodwin, Jr. (Belmont Abbey Junior College, Duke University), Charlotte, N. C.  
 Crevasse, Lamar Earle, Jr. (Duke University), Tampa, Fla.  
 Davis, Arnold Van Osdal (Duke University, University of Louisville), New Albany, Ind.  
 DeLaughter, George Dewey, Jr. (George Washington University, Duke University), Durham, N. C.  
 DePass, Skottowe Wannamaker (The Citadel, Duke University), Camden, S. C.  
 Elliott, James Francis (Lenoir-Rhyne College), Charlotte, N. C.  
 Finch, Charlie Bryan (Mars Hill College, Wake Forest College), Oxford, N. C.  
 Floyd, Marian Anita (Florida State University, Duke University), Winter Park, Fla.  
 Forrester, Eugene Norwood (University of Florida, University of North Carolina, Duke University), Dinsmore, Fla.  
 Gould, Kenneth George, Jr. (Duke University), Tampa, Fla.  
 Haiberg, Gordon Harold (Concordia College, University of North Dakota), Crosby, N. D.  
 Hair, Thomas Eugene, Jr. (University of South Carolina), Columbia, S. C.  
 Harvey, Wallace Weston, Jr. (Wake Forest College), Greensboro, N. C.  
 Hedge, Raymond Harvey, Jr. (Citadel, Rice Institute), Tyler, Tex.  
 Helms, William Kendall, Jr. (Duke University), Columbia, S. C.  
 Hewitt, Wilmer Clyde, Jr. (College of Puget Sound, University of Washington), Tacoma, Wash.  
 Hill, Paul Edward (Western Carolina Teachers College, University of North Carolina), Murphy, N. C.  
 Holden, Alan Berle (Keystone Junior College, Columbia University, University of Michigan), Belle Harbor, N. Y.  
 Holland, Hal Curtis (Idaho State College, College of Idaho, University of Utah, Brigham Young University, Stanford University Graduate School), Idaho Falls, Idaho.  
 Horsley, Howard Theodore (Wake Forest College), Franklin, N. C.  
 Huber, Donald Simon (Duke University), High Point, N. C.  
 Hudmon, I. Stanton, Jr. (Duke University), Jacksonville, Fla.  
 Jackson, Benjamin Taylor (Duke University), Jacksonville, Fla.  
 James, Charles Alston (The Citadel), Columbia, S. C.  
 Javitt, Norman Bert (Columbia University, Syracuse University, University of North Carolina), Bronx, N. Y.  
 Jones, James David (Virginia Military Institute), Dallas, Tex.

Jones, William Burrell (Citadel), Ocala, Fla.  
 Kelley, James Marvin, Jr. (Southern Methodist University, Rice Institute), Dallas, Tex.  
 Kelly, Richard Alexander, Jr. (Wake Forest College), Matthews, N. C.  
 Kenaston, Thomas Corwin, Jr. (Duke University), Cocoa, Fla.  
 Losin, Sheldon (University of Maryland, New York University), Baltimore, Md.  
 Ludlow, Enoch Andrus (Brigham Young University), Spanish Fork, Utah.  
 Magee, George Franklin (University of Nevada, University of California), Reno, Nev.  
 Mattox, Huit Everett, Jr. (Duke University, Concord College), Bluefield, W. Va.  
 McGerity, Joseph Loehr (Georgetown University, Columbia University, Duke University), West Palm Beach, Fla.  
 McGowan, Jack Landis (Tulane University, Emory University, University of North Carolina), Hamlet, N. C.  
 Mebane, Giles Yancey (Duke University), Raleigh, N. C.  
 Melton, Robert Allen (Duke University), Wilmington, N. C.  
 Morgan, Thomas Edward, Jr. (Duke University), Jacksonville, Fla.  
 Newman, Ernest Gustave (Duke University), Pensacola, Fla.  
 O'Neill, James Flemister (Princeton University, Duke University), Savannah, Ga.  
 Past, Si Alexander, Jr. (University of Chattanooga, Duke University), Chattanooga, Tenn.  
 Patton, Robert Gray (Yale University, Duke University), Durham, N. C.  
 Pierson, George Herman, Jr. (Washington and Lee University), Charleston, W. Va.  
 Pinks, Henry (William and Mary, New York University), Paterson, N. J.  
 Pollard, Louise Elaine Friend (Roanoke College), Accident, Md.  
 Potter, Clyde Randolph, Jr. (Wake Forest College), Belhaven, N. C.  
 Ramey, James William (University of Kentucky), Mt. Sterling, Ky.  
 Rippy, Girard Crawford, Jr. (Furman University, Duke University), Greenville, S. C.  
 Shapiro, Oscar William (Duke University), Newark, N. J.  
 Shugerman, Earle Hilel (Birmingham-Southern College, University of Alabama), Birmingham, Ala.  
 Silbergeld, Sam (University of Chicago, University of Illinois), Carlinville, Ill.  
 Sing, Robert Lloyd, Jr. (University of North Carolina, Queens College), Charlotte, N. C.  
 Skipworth, George Brook (University of Georgia, Duke University), Columbus, Ga.  
 Spach, Madison Stockton (Duke University), Winston-Salem, N. C.  
 Stallings, Tolbert Lacy, Jr. (University of Mississippi, North Georgia College, N. C. State College, University of Fribourg (Switzerland), Duke University), Louisville, N. C.  
 Talley, William Clinton (Guilford College, University of North Carolina), Greensboro, N. C.  
 Tannehill, Antone Walter, Jr. (Vanderbilt University), Hattiesburg, Miss.  
 Thomas, Annabelle (University of North Carolina), Burlington, N. C.  
 Tickle, Dewey Reid (Duke University), Burlington, N. C.  
 Verner, John Victor, Jr. (University of Mississippi, North Georgia College, North Carolina State College, Duke University), Danville, Va.  
 Vetter, John Stanley (Wake Forest College), Mt. Olive, N. C.  
 Wanzer, Sidney Hovey (Duke University), Charlotte, N. C.  
 Williams, Kenneth Trotter (Duke University), Charlotte, N. C.  
 Yudell, Robert Ben (Duke University), New Bern, N. C.

## SENIOR STUDENTS

Adams, Reuben Homer, Jr. (University of Cincinnati, Southern Methodist University), Dallas, Texas.  
 Appen, Raymond Carl (Duke University), Somerset, Ky.  
 Ayerst, Robert Irvin (Yale University, Duke University), Connellsville, Pa.  
 Bacos, James Michael (Virginia Polytechnic Institute), Brooklyn, N. Y.  
 Baer, Bruce Lawrence (Duke University, Haverford College), Chapel Hill, N. C.  
 Bell, William Reed (University of Florida, University of the South), Pensacola, Fla.  
 Berlin, Melvin (Duke University), Savannah, Ga.  
 Berry, Joseph Norman (Clemson College), Charleston, S. C.  
 Blackard, Embree Hoss, Jr. (Duke University), Gastonia, N. C.  
 Bondurant, Stuart Osborne, Jr. (University of North Carolina), Winston-Salem, N. C.  
 Bonner, Octavius Blanchard, Jr. (University of North Carolina), High Point, N. C.  
 Borden, Richard Winstead (University of North Carolina), Goldsboro, N. C.  
 Boren, Richard Benjamin, III (University of North Carolina), Greensboro, N. C.  
 Brice, George Wilson, Jr. (Duke University), Charlotte, N. C.  
 Bridges, Ronzee McIntyre (Louisiana State University, Duke University), Shreveport, La.  
 Brockmann, John Lyndon (University of North Carolina), High Point, N. C.  
 Bryant, Gerald Nelson, Jr. (High Point College, University of North Carolina), Statesville, N. C.  
 Bullard, Lubin Fletcher, Jr. (University of North Carolina), Garland, N. C.  
 Butler, William Gilbert, Jr. (University of North Carolina), Laurinburg, N. C.  
 Caffey, John Williams, Jr. (Duke University), Greensboro, N. C.  
 Cain, Frank Coral, Jr. (Catawba College), Salisbury, N. C.  
 Carter, Needham Battle (Duke University), Rocky Mount, N. C.  
 Casto, Dorothy Louise (West Virginia University), Morgantown, W. Va.  
 Chick, Ernest Watson (Duke University), Durham, N. C.  
 Chittum, John Raymond (College of Wooster, Duke University), Wooster, Ohio.  
 Cobey, William Gray (University of Minnesota, University of the South), Louisville, N. C.  
 Earley, Charles Marion, Jr. (Duke University), Norfolk, Va.  
 Edwards, Ian Keith (Duke University), Easley, S. C.  
 Evans, Eugene Micheaux, Jr. (Duke University), Durham, N. C.  
 Evans, William Canfield, Jr. (Duke University), Gainesville, Fla.  
 Fishel, John Lewis (University of North Carolina), Winston-Salem, N. C.  
 Flanagan, John Francis (Virginia Polytechnic Institute), Blacksburg, Va.  
 Fogleman, Ross Lee, Jr. (Cornell University, Guilford College, Duke University), Greensboro, N. C.

Fowler, William Robert (University of North Carolina), Pilot Mountain, N. C.  
 Garlington, Laurens Nelson (Duke University), Birmingham, Ala.  
 Gibbes, Robert Walter (University of South Carolina), Columbia, S. C.  
 Gleason, William Lounsbury (Duke University), Daytona Beach, Fla.  
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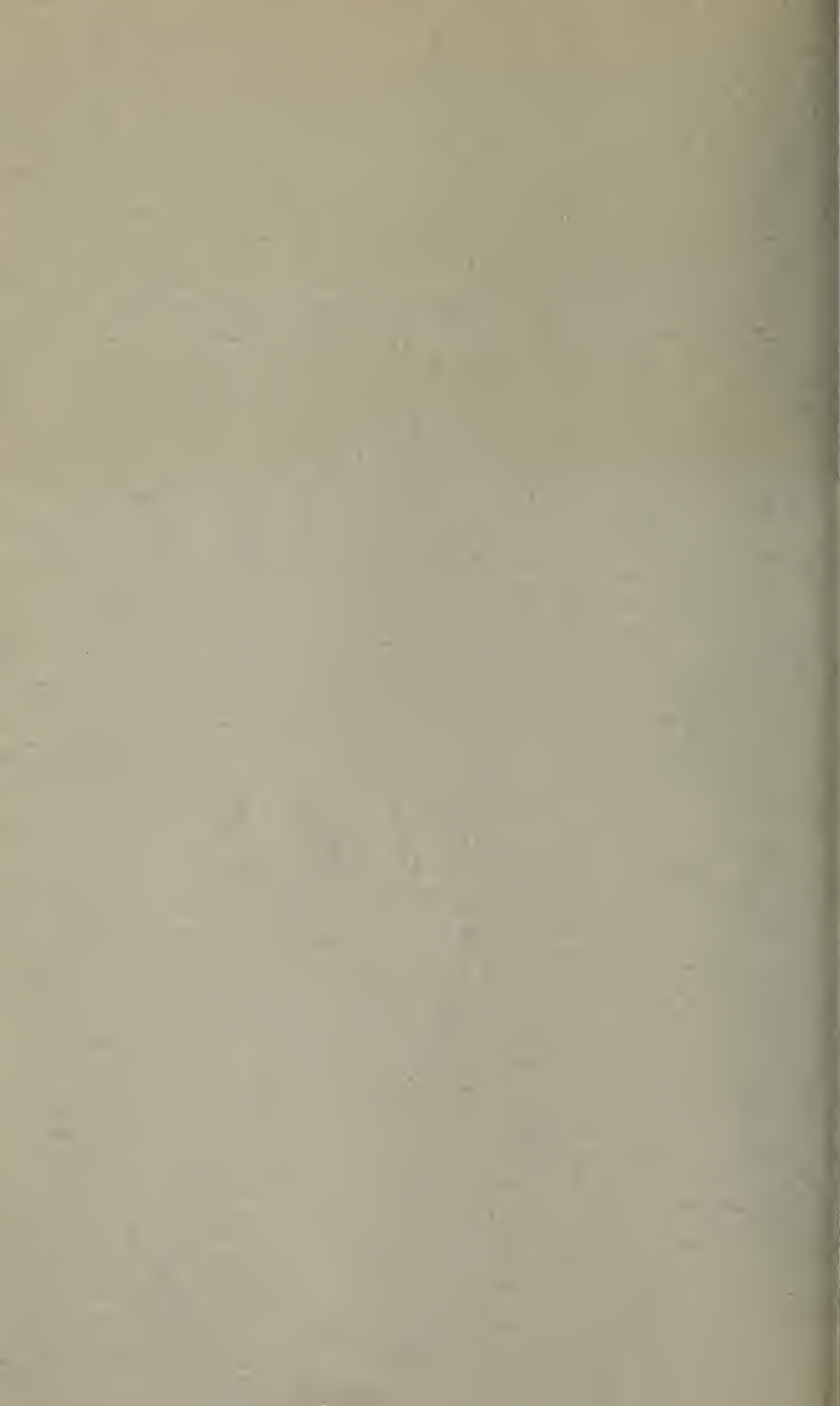
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**BULLETIN**  
**OF**  
**DUKE UNIVERSITY**



**The College of Engineering**

**ANNOUNCEMENTS FOR 1953-1954**



# Annual Bulletins

For GENERAL BULLETIN of Duke University, apply to *The Secretary*, Duke University, Durham, N. C.

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COLLEGE OF ENGINEERING

1952-1953  
ANNOUNCEMENTS FOR 1953-1954

DURHAM, NORTH CAROLINA

1953



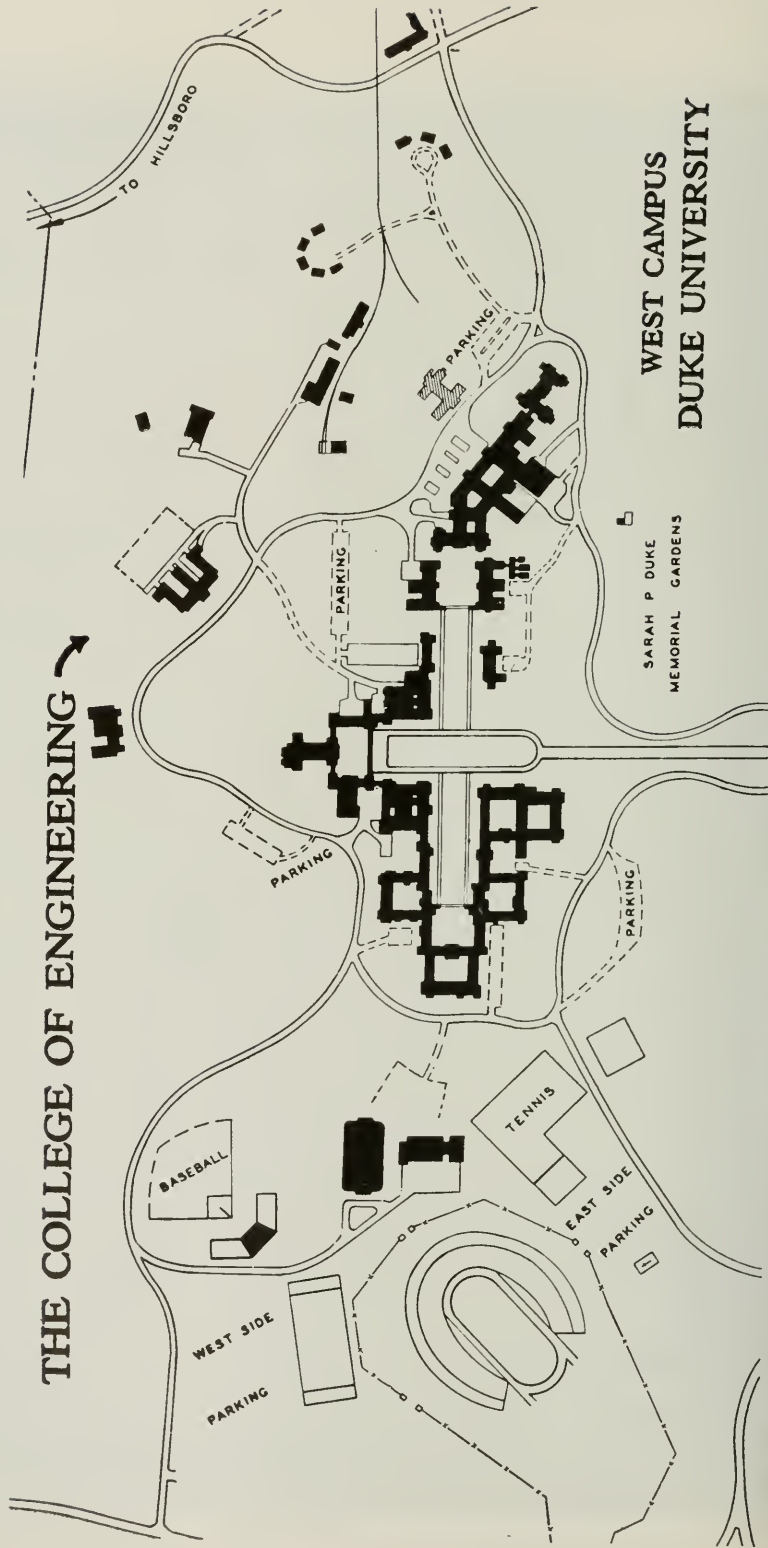
ENGINEERING BUILDING

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THE COLLEGE OF ENGINEERING →



WEST CAMPUS  
DUKE UNIVERSITY



# Calendar of the Colleges



## 1953

- September 10. Thursday, 9:00 A.M. Dormitories open to freshmen.
- September 10. Thursday, 9:00 A.M. Dormitories open to transfer students entering Trinity College and the College of Engineering.
- September 10. Thursday, 7:30 P.M. Assembly for all entering freshmen; Freshman Orientation begins.
- September 10. Thursday, 7:30 P.M. Assembly for transfer students entering Trinity College and the College of Engineering.
- September 14. Monday. Registration and matriculation of former students of Trinity College and the College of Engineering, who have not pre-registered.
- September 15. Tuesday. Registration and matriculation of new students with advanced standing, Woman's College.
- September 16. Wednesday. Final registration of pre-registered students.
- September 17. Thursday. Instruction begins, fall semester.
- October 27. Tuesday. Junior Examination in English Usage.
- November 9. Monday. Last day for reporting mid-semester grades.
- November 26. Thursday. Thanksgiving Day: a holiday.
- December 11. Friday. Founder's Day.
- December 19. Saturday, 12:30 P.M. Christmas recess begins.

## 1954

- January 4. Monday, 8:00 A.M. Instruction is resumed.
- January 18. Monday. Mid-year examinations begin.
- January 29. Friday. Mid-year examinations end.
- January 30. Saturday. Registration and matriculation of new students.
- February 1. Monday. Last day for matriculation for the spring semester.
- February 2. Tuesday. Instruction begins, spring semester.
- March 17. Wednesday. Last day for reporting mid-semester grades.
- March 27. Saturday, 12:30 P.M. Spring recess begins.
- April 5. Monday, 8:00 A.M. Instruction is resumed.
- May 24. Monday. Final examinations begin.
- June 3. Thursday. Final examinations end.
- June 5. Saturday. Commencement begins.
- June 6. Sunday. Commencement sermon.
- June 7. Monday. Graduating exercises.

# The College of Engineering



THE College of Engineering offers the student full four-year courses in Civil, Electrical, and Mechanical Engineering. Because the class enrollment is carefully limited, each student has an exceptional opportunity to receive his technical training from men who are interested in his individual problems. These men have been recognized for their professional competence and have been selected particularly for their ability to teach.

The curricula of the three departments lead to the degrees of Bachelor of Science in Civil, Electrical, and Mechanical Engineering respectively. All three curricula are fully accredited by the Engineers' Council for Professional Development, which is the ultimate authority of the engineering profession on educational standards; by the Regents of the State of New York; and by other national and regional accrediting groups. Each curriculum requires 148 semester hours of work, four of which are in physical education. In addition to the technical subjects necessary to a student in his chosen career, the programs include courses in related work, studies in certain non-engineering fields considered beneficial to him as a citizen and professional man, and the privilege of electing for himself courses in which he is personally interested.

Instruction in engineering subjects began at Duke University in 1887. Separate departments in civil and electrical engineering were established in 1927; instruction in mechanical engineering began in 1930. This arrangement led in 1937 to the establishment of the Division of Engineering, which included the separate Departments of Civil, Electrical, and Mechanical Engineering. In 1939 the Division composed of these three departments was incorporated into the University structure as the College of Engineering, one of the three coordinate undergraduate colleges of Duke University.

The Engineering Faculty Council considers and legislates on questions of curricula and adopts regulations concerning those educational, professional, and administrative matters pertaining exclusively to the College of Engineering. The Dean of the College of Engineering serves as Chairman of the Council. The membership includes also the President of the University, the Vice-President in the Division of Education, the Dean of Undergraduate Studies, the Secretary of the Council, the Chairman and one additional representative from each department of engineering, and three members from the University Faculty

representing departments in which engineering students are required to take work.

The Director of Research and Development coordinates and supervises all engineering research activities for the College.

The College is in a modern building located on the West Campus and first occupied in January 1948. This E-shaped building houses the entire College of Engineering. It has a total volume of 1,200,000 cubic feet and provides a floor area of 70,000 square feet. Each of the three wings houses the laboratories and the specialized classrooms of one of the three engineering departments. The main portion of the building has offices, classrooms, and other general facilities.

Provided in the building for the use of all three departments of engineering are a number of general facilities.

**LIBRARY:** The Engineering Library contains a growing collection of 18,496 volumes on engineering and closely related subjects, and in addition subscribes to approximately 254 periodicals, of which 132 are bound each year. The well-lighted reading room has seating accommodations for 62 students. Engineering students also have full access to the University Library, to the Woman's College Library, and to the various specialized departmental libraries.

**LECTURE ROOM:** An attractively decorated lecture room, seating 216 people, permits audio-visual instruction of large groups and provides a convenient place for meetings of professional societies.

**CLASSROOMS:** There are nine well-lighted classrooms seating an average of 30 students per room.

**DRAFTING ROOMS:** Five drafting rooms that accommodate an average of 30 students each facilitate work in the various courses in which graphic methods are taught and employed.

**MIMEOGRAPHING AND BLUE-PRINTING:** A special room is furnished with equipment for reproducing printed matter and diagrams by either mimeographing, blue-printing, or white-printing.

**PHOTOGRAPHIC DARK ROOM:** In a separate room are facilities for processing a wide variety of photographic material used to supplement course instruction.

**STUDENT LOUNGE:** A convenient lounge is provided for the use of students.

**ENGINEERING PUBLICATIONS ROOM:** The staff of the *DukEngineer*, official student-published magazine of the College of Engineering, has its headquarters in the building.

**CONFERENCE ROOM:** A room is furnished for conference work by faculty committees, other special conferences, and student interviews with visiting industrial personnel representatives.

# Officers of Administration



ARTHUR HOLLIS EDENS, B.Ph., A.M., M.P.A., Ph.D., LL.D. <i>President of the University</i>	West Campus
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WILLIAM HOLLAND HALL, A.B., A.M., B.C.E., M.S.C.E. <i>Professor of Engineering</i> <i>Dean, College of Engineering</i>	922 Urban Avenue
HAROLD CRUSIUS BIRD, Ph.B., C.E. <i>Professor of Civil Engineering</i> <i>Chairman, Department of Civil Engineering</i>	1209 Virginia Avenue
WALTER JAMES SEELEY, E.E., M.S. <i>Professor of Electrical Engineering</i> <i>Chairman, Department of Electrical Engineering</i>	1005 Urban Avenue
RALPH SYDNEY WILBUR, B.S. in M.E., M.E. <i>Professor of Mechanical Engineering</i> <i>Chairman, Department of Mechanical Engineering</i>	1018 Demerius Street
CHANDLER WILCOX BROWN, B.S. in C.E. <i>Instructor in Civil Engineering</i>	Rt. 1, Cornwallis Road
FRANK NICHOLAS EGERTON, A.B., A.M., E.E. <i>Assistant Professor of Electrical Engineering</i>	411 N. Gregson Street
ERNEST ELSEVIER, B.S. in M.E., M.S. in M.E. <i>Assistant Professor of Mechanical Engineering</i>	Hillsboro, N. C.
C. DARBY FULTON, JR., B.E. in M.E., Sc.D. <i>Assistant Professor of Mechanical Engineering</i>	1614 University Drive
HOWARD N. HAINES, B.S. <i>Assistant Professor of General Engineering</i>	2307 Club Boulevard
RAY WALTER HOLLAND, B.S. in M.E., M.S. in M.E. <i>Assistant Professor of Mechanical Engineering</i>	2528 Glendale Avenue
VAN LESLIE KENYON, B.S. in M.E., M.M.E. <i>Assistant Professor of Mechanical Engineering</i>	Hillsboro, N. C.
EDWARD K. KRAYBILL, B.S. in E.E., M.S.E., E.E. <i>Assistant Professor of Electrical Engineering</i>	900 Dacian Avenue
RALPH E. LEWIS, B.S. in M.E., M.S. in M.E. <i>Assistant Professor of General Engineering</i>	1401 Alabama Avenue
OTTO MEIER, JR., B.S. in E.E., M.S., E.E. <i>Associate Professor of Electrical Engineering</i>	916 Monmouth Avenue
HARRY A. OWEN, B.E.E., M.S.E. <i>Assistant Professor of Electrical Engineering</i>	Hillandale Road
AUBREY E. PALMER, B.S. in Engr., C.E. <i>Assistant Professor of Civil Engineering</i>	2519 State Street
FREDERICK JEROME REED, M.E., M.S. <i>Associate Professor of Mechanical Engineering</i>	2203 Englewood Avenue
WILLIAM BREWSTER SNOW, B.S. in C.E., M.S., Sc.D. <i>Associate Professor of Civil Engineering</i>	1022 West Trinity Avenue



CHARLES ROWE VAIL, B.S. in E.E., M.S. (E.E.) <i>Associate Professor of Electrical Engineering</i>	900 Dacian Avenue
ARTHUR REMINGTON WHITE, JR., B.S. in C.E. <i>Instructor in Civil Engineering</i>	Rt. 1, Cornwallis Road
LESLIE CLIFFORD WILBUR, B.S., M.S. <i>Instructor in Mechanical Engineering</i>	1208 E. Geer Street
JAMES WESLEY WILLIAMS, A.B., B.S. in C.E., M.S. <i>Assistant Professor of Civil Engineering</i>	206 Swift Avenue
<hr/>	
MRS. ETHEL LONG KALE <i>Librarian</i>	3325 Chapel Hill Road
<hr/>	
JOSEPH PHILIP EDWARDS <i>Laboratory Technician in Electrical Engineering</i>	1604 B Street
JOSEPH STEVENSON HOCUTT <i>Laboratory Technician in Mechanical Engineering</i>	Rt. 1, Hillsboro

Instruction in Non-Engineering subjects is given by members of the General Faculty listed in the Bulletin of Undergraduate Instruction.

# Admission



**A**PPPLICANTS may qualify for admission as members of the freshman class or as students with advanced standing. Since the enrollment is limited, the Committee on Admissions selects students who, in its judgment, are best qualified to benefit from the educational advantages which the College offers. The Committee bases its decision on the academic record of the applicant, on test scores, and on satisfactory evidence of good character and general fitness for college life at Duke. A personal interview with an officer of the University or a designated alumnus or alumna is of material benefit to the Committee and the applicant.

**ADMISSION TO THE FRESHMAN CLASS:** An applicant for admission to the freshman class must present at least fifteen acceptable units of secondary-school credit. A unit of credit is allowed for a course of study pursued throughout an academic year in an accredited secondary school, provided five recitations a week have been held and the prescribed amount of work has been completed satisfactorily.

*For admission to the College of Engineering* seven of the fifteen units must be in English (3 units), physical science (1 unit), algebra ( $1\frac{1}{2}$  units), plane geometry (1 unit), and solid geometry\* ( $\frac{1}{2}$  unit). The remaining eight units are elective. At least five of them must be in English, foreign language, history and social studies, mathematics, and natural or physical science. It is recommended that these five be chosen from the following list:

English (in addition to the required 3 units) .....	1 unit
Algebra (in addition to the required $1\frac{1}{2}$ units) .....	$\frac{1}{2}$ unit
Trigonometry .....	$\frac{1}{2}$ unit
Physics or chemistry or biology (in addition to the required unit) .....	1 to 3 units
Foreign languages .....	1 to 4 units
†History and social studies .....	1 to 3 units

The three additional units needed to make the total of fifteen may be chosen from the subjects listed above or they may be selected at large from the following table, which gives the subjects acceptable for entrance credit and the maximum credit acceptable in each subject:

\* Any deficiency in this requirement must be made up before the beginning of the sophomore year.

† Applicants who do not present at least one acceptable unit of history must take history in college.

English .....	4	Zoology .....	1
Latin .....	4	General Biology .....	1
Greek .....	3	Physical Geography .....	1
German .....	3	General Science .....	1
French .....	3	Agriculture .....	2
Spanish .....	3	Mechanical Drawing .....	2
Mathematics .....	4	Shop Work .....	2
History and Civics .....	4	Art .....	1
Physics .....	1	Music .....	1
Chemistry .....	1	Commercial Subjects .....	3
Botany .....	1		

**ADMISSION TO ADVANCED STANDING:** An applicant for advanced standing must have fulfilled the equivalent of the requirements for admission to the freshman class, must present official certificates of all work completed in other institutions, and must have an honorable dismissal from each institution previously attended. Credit for work completed will be determined in relation to the curriculum requirements of the College of Engineering.

Applicants for advanced standing should present, as far as possible, subjects corresponding to those required by the College. They may not, during their first semester, register for more than the minimum number of hours required of the class which they enter, except by permission of the Dean.

Transfer credits are tentatively evaluated pending the completion of two semesters of work in residence. To validate provisional credits, the student must earn at least an average of C in a normal load of work. Transfer grades of C or above are rated at one quality point per credit hour when validated. Credits with grades of D are not acceptable.

The maximum amount of credit acceptable from a junior college is sixty semester hours, exclusive of physical education. No credit is given for work completed by correspondence, and credit for no more than six semester hours is allowed for extension courses. Any extension work accepted must be specifically approved by the Dean.

**ADMISSION OF SPECIAL STUDENTS:** Upon the approval of the Dean, students of mature age may be admitted for special work in such courses of instruction as they are qualified to take. They may not be admitted as candidates for a degree in a regular course unless they meet all normal requirements for admission.

**ADMISSION PROCEDURE:** Application for admission to the College of Engineering should be made to the Director of Admissions of Trinity College and the College of Engineering. Application forms and instructions will be sent to the applicant. It is the responsibility of the applicant to see that these forms are properly executed and, together with other requested material, sent promptly to the Director.

Application prior to the final year of the secondary-school course is not required. Formal steps looking toward admission should be

initiated, however, early in the senior year. Applicants for admission are requested to file all credentials by March 1. Candidates will be notified as decisions are made.

A graduate of an accredited school who submits fifteen acceptable units of secondary-school subjects, who is recommended by his principal, and who otherwise meets the requirements of the Committee on Admissions may be admitted without examination. The certification and recommendation must be on blanks furnished by the University and signed by the principal of the school in which the applicant completed his course. An applicant who presents fifteen acceptable units for admission from a non-accredited school is required to validate these units by entrance examinations and such other tests as the College may prescribe.

**READMISSION OF FORMER STUDENTS:** A student who, following withdrawal from College, desires to return should apply to the Director of Admissions of Trinity College and the College of Engineering. When applying for readmission the student should make a detailed statement of his activities since leaving Duke University.

**WOMEN STUDENTS:** Women enrolled in the College of Engineering live on the woman's campus and are subject to the general regulations of the Woman's College.

See the special notice on the back cover.
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# Financial Information and Living Accommodations



**F**EES paid by the students cover only a part of the cost of their instruction and of the operations of the University. Income from endowment and contributions from the alumni, alumnae, and other public-spirited men and women meet the balance, which constitutes more than half the total cost.

**FEES:** A registration fee of \$20.00 is required of all new students. This fee is payable only once; it is not refundable. A room deposit of \$25.00 is also required of all new students (for full explanation see section on Living Accommodations). A tuition fee of \$175.00 and a general fee of \$75.00 are payable at the beginning of each semester. The general fee is in lieu of special fees usually charged for matriculation, use of laboratories, student health service, commencement, etc.

An advance deposit of \$25.00 is required of all students in residence at the time of spring registration in order to reserve a place in the classes for the fall semester. This is applied toward payment of the general fee at the opening of the fall semester. The deposit will be refunded to students whom the University does not permit to return. Students who of their own volition fail to return are not entitled to a refund.

An advance deposit of \$25.00 is also required of old students who have been out of school for one or more semesters and have been accepted for readmission. It is applied toward payment of the general fee for the semester of readmission. The advance deposit is paid at the time of notification of acceptance and is not refundable.

Students are entitled to one transcript free of charge. Additional copies are supplied at \$1.00 each. Records are not released when the Treasurer's Office reports an unpaid account.

Students may have their bills sent to a parent or guardian provided the Treasurer has been notified in writing with sufficient antecedence. Failure of a student or of a parent or guardian to pay bills on the dates scheduled will debar the student from class attendance until his account is settled in full; subsequent withdrawal does not entitle him to a refund. No student is considered by the Faculty as a candidate for graduation until he has settled with the Treasurer for all his indebtedness to the University. A student who has not



settled all his bills with the Treasurer is not allowed to stand the final examinations of the academic year.

An Air Force ROTC deposit of \$20.00 is required of students enrolling in Air Science to cover possible loss of military equipment issued to them. This deposit is refunded to the student upon return of issued equipment.

Refunds of tuition and other fees are made to students who withdraw within 14 days after the beginning of the semester. On and after the fifteenth day all fees are considered as earned and no refunds are made.

Students who register during the regular academic year for no more than two courses with a maximum credit of 8 semester hours are classified as special students. They are charged a registration fee of \$5.00 for each course, and \$12.00 for each semester hour of course credit. Students taking nine or more hours are charged full fees.

Due to rising costs a readjustment in charges is being considered. In the event of an adjustment applicants will be notified.

Auditors are permitted to attend classes provided they secure the consent of the instructor. They submit no daily work, take no examinations, and receive no credit. Students taking a full program and paying full fees may audit one or more courses without charge. Students not paying full fees are charged \$10.00 for each course each semester.

**ESTIMATED EXPENSES FOR AN ACADEMIC YEAR:** Incidental expenses depend upon the tastes and habits of the individual, but the actual necessary expenses for an academic year are as follows:

	<i>Low</i>	<i>Moderate</i>	<i>Liberal</i>
Tuition .....	\$350.00	\$ 350.00	\$ 350.00
General Fee .....	150.00	150.00	150.00
Room Rent .....	100.00	125.00	175.00
Board .....	375.00	450.00	500.00
Laundry .....	25.00	30.00	35.00
Books .....	30.00	40.00	50.00
	<hr/> \$1030.00	<hr/> \$1145.00	<hr/> \$1260.00

The actual fees and expenses necessary for one year in residence as a student in Trinity College or the College of Engineering can be met within \$1030.00.

**STUDENT AID:** Duke University is interested in students with ability and ambition. It is the aim of the University Scholarship Committee and others affiliated with the Student Aid Program to provide, insofar as possible, the financial assistance required by worthy students. This assistance takes various forms. The actual cost to the University for each student exceeds the tuition and fees collected by approximately \$400.00 per year. The deficit is paid out of

contributions and income from endowment. Scholarships and prizes enable students with inadequate resources to reduce the amount payable to the University. Loans are made available, and through the Student Employment Offices part-time jobs are arranged. Through the Student Aid Program an earnest effort is made to eliminate the economic status of the student as a criterion for admission.

For details concerning scholarships, awards, loans, and student employment see the *Bulletin of Undergraduate Instruction*.

**LIVING ACCOMMODATIONS FOR MEN:** Craven, Crowell, Few and Kilgo Quadrangles on the West Campus are reserved for undergraduate men. Kilgo Quadrangle is reserved for freshmen. The Quadrangles contain 33 divisions known as Houses, each House being designated by a letter of the alphabet, thereby including House A through House HH. The rooms are equipped as single rooms and as double rooms. In some areas communicating doors between rooms permit the use of rooms as suites for 3 or 4 persons. The rental charge for a single room is \$87.50 each semester. The rental charge for a double room is \$125.00 each semester, or \$62.50 for each occupant each semester.

Undergraduate men are required to live in the residence houses unless they are married, or are living with parents or close relatives. Any exceptions must be approved by the Dean of Men.

Rooms may be reserved by new applicants only if they have been officially accepted for admission by the University and if they have paid a room deposit of \$25.00. The room deposit is refundable, providing application for refund is made 60 days prior to the registration date of the semester for which the room was reserved or within 30 days after official withdrawal from the University Residence Hall.

A resident student, in order to retain his room for the succeeding semester, must make application at the office of the Housing Bureau for confirmation of the reservation. In order to secure a refund of his initial room deposit, he must cancel his room reservation 60 days prior to the registration date of the semester for which the room was reserved. All rooms which have not been reserved on or before an announced date will be considered vacant for the succeeding semester and will be reserved in the order in which applications are made.

Rooms are rented for no shorter period than one semester or, in the case of a medical student, one quarter, unless by special arrangement with the Housing Bureau. A period of occupancy other than a semester or quarter and without special arrangement will be charged at a minimum rate of \$25.00 or at a rate of \$1.00 each day of occupancy.

The exchange of rooms may be arranged at the Housing Bureau within 15 days after the official opening of the semester or quarter

of the school term. Thereafter a charge of \$2.00 may be made. Persons exchanging rooms without the approval of the Housing Bureau will be subject to charges for both rooms.

The authorities of the University do not assume responsibility for the persons selected as roommates. Each student is urged to select the roommate when the room is reserved.

Beds and mattresses (39" x 74"), tables, chairs, dressers, mirrors, and window shades are furnished by the University. The student supplies linens, blankets and pillows. Rugs, if desired, are not to exceed 50 square feet in size.

Duke University desires to provide for its students a residential environment conducive to academic achievement, the development of high ideals, and sound character. The institution asks and believes that each student will contribute to this end by arranging his personal belongings in an orderly manner, by caring for the buildings and furniture as he would do in his own home, and by observing a code based on gentlemanly behavior in an educational environment which demands respect for all residents. The following regulations are to serve as a guide to one's responsibilities to his fellow students and to the University.

1. The student will be held responsible for any damage to the room or furnishings during the rental period, and will pay for all damages caused by his neglect, misuses or abuse of any part of the University property. Inspections will be made throughout the college year to determine the condition of the rooms and to advise students concerning the use and care of the rooms.

2. Maids will prepare the rooms daily except Sunday, the service beginning promptly at 8:00 A.M. and ending at 1:00 P.M.

3. Furniture and furnishings must not be removed from the rooms in which they have been placed by the University.

4. Electric wiring, door locks, window screens, steam or water lines must not be changed or supplemented. The University makes such changes as are necessary and advisable.

5. Equipment for cooking and refrigeration is prohibited in the dormitory rooms.

6. Pictures, pannants, and clippings must be hung from the picture moulding and not tacked or pasted on walls or woodwork.

7. All trunks and heavy luggage must be stored in the trunk rooms.

8. Any exchange of rooms must be arranged in the Housing Office.

9. Keys for dormitory rooms are issued at the Housing Office. All issues and exchanges must be made at the Office. The use or possession of an unofficial key is forbidden.

10. The use or possession of intoxicating liquors, wines, or beer in any of the buildings or on the grounds of Duke University is forbidden.

11. Any form of gambling is strictly forbidden.

12. Animals must not be kept in the dormitories.

13. Laws of North Carolina and the regulations of the University prohibit the possession or use of firecrackers or explosives of any kind.

14. Firearms (including air rifles) may be brought into the dormitories only by written permission of the Dean.

15. Playing football, softball, baseball, golf, or any other sport is forbidden in the dormitory area, and must be confined to designated areas.

16. Women are not permitted in the dormitory sections of buildings except when accompanied by the University Hostess, or for authorized openhouses.

17. The use of dormitory rooms as sales offices or storerooms, or the solicitation of sales or gifts within the buildings or on the grounds is prohibited except by appointees of the University.

18. The installation of television aerials in or on University buildings is forbidden.

19. Students are excepted to refrain from making excessive noise at all times, either in person or by radios or record players, or by other instruments causing noise.

**DINING SERVICE:** The dining facilities on the West Campus include 3 cafeterias with multiple-choice menus, and the Oak Room where full meals and *a la carte* items are served. The cost for the academic year ranges from \$375.00 to \$500.00, depending on the tastes of the individual. In the Men's Graduate Center there is a cafeteria with multiple choice menus and a Coffee Lounge where sodas and sandwiches are served from 11:30 a.m. to 11:00 p.m.

# Registration and Academic Regulations



**ORIENTATION PROGRAM:** All freshmen and transfer students are required to participate in the activities of Orientation Week. The program includes general ability, achievement, and placement tests, orientation lectures, physical examinations, social events, special religious services, registration, and enrollment.

**MATRICULATION AND REGISTRATION:** Students in residence are required to pay an advance deposit of \$25.00 for the following year on or before the date set for spring registration. Students who do not select their courses for the following year at the time appointed must pay a fee of \$5.00 to the Treasurer of the University before their course cards may be approved for the fall. Students whose course cards have been approved in the spring may matriculate by mail during the summer. With the exception of the advance deposit, the same regulations apply to registration for the spring semester.

Students who register in either semester at a date later than that prescribed in the calendar of this Bulletin must pay to the Treasurer a fee of \$5.00. They are counted as absent in the work they have missed in the courses to which they are admitted, and these absences carry the same penalty as do other absences from the course. Changes in courses for reasons not arising within the University require a payment of \$1.00 for each change made. No course may be elected later than two weeks after the opening of the semester, and no student may be admitted to any class without an enrollment card.

## *General Academic Regulations*

**QUANTITY CREDIT AND COURSE LOAD:** The term of credit used is the semester hour, which signifies one recitation a week throughout the semester. Three hours of laboratory work are equivalent to one hour of class work. Two semesters of seventeen weeks each constitute the academic year. For the degree of Bachelor of Science in Engineering, credit for 148 semester hours is required.

In the College of Engineering the normal load is 18 semester hours, exclusive of physical education. No student is permitted to take less than 14 semester hours of work without special permission from the



Dean or to take more than the normal load of work unless his average grade in the preceding semester is higher than C.

**QUALITY CREDIT:** The requirements for the degree are computed not only in semester hours but also in quality points. Quality points are earned by a student on the basis of his grades: for an A he receives three quality points for each semester hour; for a B, two quality points for each semester hour; for a C, one quality point for each semester hour; for a D, no quality points. Credit for at least 148 quality points is required for a degree in Engineering.

To be eligible for graduation, a student of the senior class must complete the work of his senior year with a minimum average grade of C regardless of his average grade in preceding years.

**RESIDENCE REQUIREMENT:** A minimum of 36 semester hours of senior-level work in the College of Engineering must be earned in residence. A student who meets this requirement but who still lacks six to eight semester hours in final fulfillment of requirements may take this work in another institution of approved standing provided that the course is approved by the head of the department concerned and by the Dean. His grades on this work must not be below C.

## *Grading, Attendance, Reports, Dismissal, and Examinations*

**GRADING:** Grades shall indicate one of four conditions:

(1) Passed. A grade of A, B, C, or D shall indicate that a student has passed a course. The work of this group of students is graded according to the following system: A, exceptional; B, superior; C, medium; D, inferior.

(2) Failed. A grade of F indicates that the student has failed the course, and in order to receive credit for the course he must repeat the work in class. He may not take a second examination until he has repeated the course.

(3) Incomplete. (a) A grade of I may be reported by the instructor if for any reason he is unable to report the final grade at the regular time. (b) Incomplete courses must be completed before the close of the succeeding semester; otherwise the I is recorded as F, and the course must be repeated in class if the student is to receive credit for it.

(4) Absent from final examination. (a) The grade X indicates that the student was absent from the regularly scheduled examination. (b) If the absence is excused by the Dean, the student may receive an examination upon the payment of a fee of \$3.00 to the Treasurer of the University. The instructor concerned arranges for the examina-

tion. (c) A student with an X grade who has not obtained a passing grade before the end of the semester following that in which the X was incurred is regarded as having failed in the course concerned and must repeat the work in class in order to receive credit. (d) If a student's absence from an examination is not excused by the Dean, his grade for the course concerned shall be recorded as F.

If a student drops a course without permission from the Dean, the grade for that course shall be recorded as F. If he drops with permission a course in which he is failing at that time, the grade for that course shall be recorded as F unless, in the judgment of the Dean, circumstances do not justify this penalty.

**ATTENDANCE:** Regular and punctual attendance in class work is expected of all students. Weekly reports of all absences from class are to be made by each instructor and filed in the Dean's office. No instructor has the authority to excuse a student from class attendance, and it is his duty to report all absences and tardinesses to the Dean's office. The first three tardies in a given course are counted as one absence, and each succeeding tardy is counted as one additional absence.

To provide for absences due to brief illness or other necessary reasons, one absence per semester hour credit may be incurred in each course during each semester.

Absences due to illness of at least four days' duration and authorized absences for representation of the University may be excused, provided foresight has been used in previous absences.

Sophomores, juniors, and seniors who, in a normal schedule, make averages of B or above in the preceding semester will be allowed two absences per semester hour but will, in all other respects, be subject to the same regulations as other students.

All absences immediately before and after announced holidays are counted as double absences.

For each unexcused, excessive, or consecutive absence the student incurs the loss of quality points in proportion to the number of such absences taken: one quality point for the first absence, two for the second, and three for the third. When the third unexcused, excessive, or consecutive absence is incurred, the student is debarred from the course with the loss of six quality points.

When a student's course load is reduced because of unexcused absences to less than 12 semester hours, he shall be required to withdraw from the University.

**REPORTS:** Reports on class attendance and proficiency in academic work are sent to parents or guardians after the examinations at the end of each semester. In addition, reports on freshmen are mailed at each mid-semester period.

**DISMISSAL:** A student of the freshman class to remain in the University must pass at least 6 semester hours of work in his first semester and 18 semester hours in his first year. All other students must pass at least 9 semester hours each semester. A student who is ineligible to re-enter in September is ineligible to enter the Summer Session. The University may require a student whose record is considered unsatisfactory to withdraw although he has met the minimum requirements set forth in this paragraph.

**EXAMINATIONS:** Final examinations are held in all subjects in January and May.

**DEFICIENCIES IN COMPOSITION:** Any student who must take English 1 and whose score in the English placement test indicates that he is not ready for English 1 must earn a passing grade in English 1 before being permitted to enter English 1.

Whenever the work of a student in any course is unsatisfactory because of errors in English, the instructor may report the student to the Dean, who will require him to enroll in remedial English until, in the opinion of the Remedial Laboratory, the deficiency is removed.

All instructors are requested to advise their students each semester concerning this regulation.

See the special notice on the back cover.
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# Activities



## STUDENT BRANCHES OF ENGINEERING PROFESSIONAL SOCIETIES

The three Departments of the College of Engineering support student branches of the following national professional engineering societies:

*American Institute of Electrical Engineers, American Society of Civil Engineers, American Society of Mechanical Engineers.*

## ENGINEERING STUDENT HONORARY SOCIETIES

The following national honorary societies are represented at Duke:

*Tau Beta Pi* (Engineering national honor society—Gamma chapter of North Carolina) .

*Eta Kappa Nu* (Electrical engineering national honorary society—Duke University Branch of Eta chapter).

*Pi Tau Sigma* (Mechanical engineering national honorary society—Pi Iota chapter) .

*Order of St. Patrick* (Leadership in engineering student activities).

## ENGINEERING STUDENT PUBLICATION

*The DukEngineer*, official student-published magazine of the College of Engineering which appears twice each semester, contains articles on technical and semi-technical topics and other matters of interest in the College.

## THE ENGINEERS' CLUB

The Engineers' Club sponsors social activities among students of the College of Engineering.

## GENERAL ACTIVITIES OPEN TO ENGINEERS

The Young Men's Christian Association; Classical Club; Debate Council; Club Panamericano; Duke Masonic Club; Duke University Steering Committee; Duke Players; Duke Square Dance Club; Duke University Church (Interdenominational); Duke University Handbook and Directory; Freshman Advisory Council; Hoof 'n' Horn Club; Interfraternity Council; Intramural Athletic Department; Pegram Chemistry Club; Quadrangle Pictures; Shoe and Slipper Club;

Student Religious Council; Town Boys' Club; G.O. Politan Club; World Student Service Fund; Young Democrats Club; Duke University Instrumental Music Association; Men's Glee Club; The University Chapel Choir; *The Archive* (Monthly); *Chanticleer* (Annual); *Chronicle* (Weekly).

### HONORARY SOCIETIES

In addition to the national engineering student honorary societies, students of the College of Engineering are eligible for membership in the following national honorary societies:

*Phi Beta Kappa* (Scholarship); *Sigma Xi* (Scientific Research); *Omicron Delta Kappa* (Leadership—Men); *Phi Eta Sigma* (Freshman Scholarship); *Pi Mu Epsilon* (Mathematics); *Sigma Pi Sigma* (Physics); *Sigma Delta Pi* (Spanish); *Tau Kappa Alpha* (Forensic); *Tau Psi Omega* (French); *Theta Alpha Phi* (Dramatic); *Delta Phi Alpha* (German).

Local honorary societies for which engineers are eligible include: *Red Friars* (Leadership); *Beta Omega Sigma* (Sophomore Leadership).

### NATIONAL SOCIAL FRATERNITIES

Alpha Tau Omega; Beta Theta Pi; Delta Sigma Phi; Delta Tau Delta; Kappa Alpha; Kappa Sigma; Lambda Chi Alpha; Phi Delta Theta; Phi Kappa Psi; Phi Kappa Sigma; Pi Kappa Alpha; Pi Kappa Phi; Sigma Alpha Epsilon; Sigma Chi; Sigma Nu; Sigma Phi Epsilon; Tau Epsilon Phi; Theta Chi; Zeta Beta Tau.

### HONORS

To be eligible for Honors, a student must earn during the year a credit of not less than thirty semester hours. Students in the freshman, sophomore, and junior classes who earn an average of at least two and one-half quality points per semester hour are given Honors. All semester hours on which a student receives a grade are counted in the determination of Honors.

The degree of Bachelor of Science in Civil, Electrical, or Mechanical Engineering with distinction is conferred under the following rules:

Students who have completed a minimum of ninety semester hours in Duke University are eligible for general Honors at graduation. Those who earn an average of at least two and one-half quality points per semester hour are recommended for a degree *magna cum laude*. Those who earn an average of at least two and three-fourths quality points per semester hour are recommended for a degree *summa cum laude*. All semester hours taken in Duke University on which a student receives a grade are counted in the determination of Honors.

### THE JONES CHAIR OF ENGINEERING

Established 1951 by Edwin L. Jones, Sr., '12; Annabel Lambeth Jones, '12; Edwin L. Jones, Jr., '48; Lucille Finch Jones; and the J. A.



Jones Construction Company in memory of James Addison Jones and Raymond A. Jones; the income to be used for a professorship and/or for scholarship aid to worthy and qualified students in the College of Engineering.

### PRIZES

*The Sigma Xi Prize:* The Society of the Sigma Xi, national scientific research society, is devoted to the encouragement of scientific research and seeks to stimulate those who show promise of accomplishment in this field. As an encouragement to younger men and women the Duke Chapter of Sigma Xi has established several prizes to be awarded annually, among them a prize for an outstanding undergraduate project or paper.

*Julia Dale Prize in Mathematics:* This is a prize of books given annually to the undergraduate who shows the greatest proficiency in the study of the calculus.

*The Milmow Prize:* This prize, consisting of one year's subscription to the *Electrical World*, is awarded each year to that student from North or South Carolina graduating in the Department of Electrical Engineering, who, in the opinion of the faculty of that department and as shown by his grades, has made the most progress in electrical engineering during his last year in college.

*The Tau Beta Pi Prize:* The North Carolina Gamma Chapter of Tau Beta Pi, national honorary engineering fraternity, awards each year a suitable prize, such as an engineering handbook, to a sophomore student in engineering for outstanding scholastic achievement during the freshman year.

*The William Senhauser Prize* is given by his mother in memory of her son, a member of the class of 1942, who lost his life in the Pacific Theatre of War on August 4, 1944. The award is made annually to the sophomore or junior in Trinity College or the College of Engineering who has made the greatest contribution through participation and leadership in intramural sports. The winner of this prize is chosen by a committee selected by the President of the University.

### STUDENT BROADCASTING SYSTEM

The student broadcasting system of the University is under the control of a Radio Council, which is constituted as follows: two members from the University staff, appointed by the President; three members from the faculty who serve as engineering, production, and business advisers; three men from the junior and senior classes, including one engineer, elected by the students in Trinity College and the College of Engineering; one woman from either the junior or senior class, elected by the students of the Woman's College; one man from either the junior or senior class, elected by the members of the Student Legislature of the Men's Student Government Association

from within the membership of that body; one woman from either the junior or senior class, elected by the members of the Woman's Student Government Association from within the membership of that body; and four student managers of the student broadcasting system, *ex officio* members without voting power.

### *The Bureau of Testing and Guidance*

The University maintains a Bureau of Testing and Guidance. In it are centralized the counseling and guidance programs for students. It is responsible for the administration of various testing programs throughout the year. Included in the responsibilities of the Bureau are admission tests, placement tests, vocational series, other specialized programs including the Graduate Record Examination, the Navy College Aptitude Test, the Medical College Admissions Test, and specific testing programs requested by the schools and colleges within the University.

### *Appointments Office*

The Appointments Office is a service agency designed to aid graduates in solving the problem of post-college employment. Its primary function is to serve as an intermediary between students and prospective employers. It acquaints students with possibilities in business and professional fields; it assembles comprehensive records on each registrant and makes these records available to appropriate representatives; and it arranges interviews with prospective employers. The data assembled for individual records include academic achievement, training, experience, extracurricular activities, and honors. On occasion additional information of a specialized nature is secured. Confidential letters of recommendation are incorporated in the file of each registrant. The Office initiates contacts for students or co-operates with students who make contacts through personal efforts or through various departments of the University. It aids the registrant in directing his search to a field appropriate to his aptitude, training, and interest.

There are two major divisions of the Office: (1) the Commercial Division, which handles all matters involving contacts with business and professional areas not related to formal education; and (2) the Educational Division, which concerns itself with teaching and school administration positions at all levels. Students and alumni may register with either or both of these divisions.

The Office receives more calls for qualified personnel than it can supply from its registrants. It is to the mutual advantage of the students and the Office that a complete record of registrants be assembled by the fall of the senior year.

# Reserve Officers Training Corps



THROUGH the Naval and Air Force Reserve Officers Training Program the University is cooperating with the Department of National Defense in the effort to provide a steady supply of well-educated officers for the active and reserve forces of the Nation.

THE NAVAL RESERVE: Scholarships are awarded to candidates selected as a result of an annual nation-wide test and selection procedure. These men are designated as Regular NROTC Students and are appointed Midshipmen, USNR. The scholarship covers the cost of tuition, fees, and textbooks. NROTC Midshipmen receive retainer pay at the rate of \$600 per year. The Navy furnishes necessary uniforms and equipment.

Normally students will attend college for four years while in the NROTC. They may take any course leading to a baccalaureate or higher degree, except that Midshipmen entering in 1950 and thereafter may not pursue courses leading to degrees in pre-medicine, pre-dentistry, pre-theology, medicine, dentistry, or theology. They must include in their courses of study 24 semester hours of Naval Science plus certain minimum requirements in mathematics, physics, and English. They will wear the uniform only when engaged in drills or other Naval Activities prescribed by the Professor of Naval Science and, except for the ordinary requirements of gentlemanly behavior, will be subject to Naval discipline only at those times. They are required to make two summer cruises at sea and to attend one summer training period of amphibious and aviation indoctrination. Upon graduation Regular NROTC students must accept a commission as Ensign, USN, or Second Lieutenant, USMC, if offered, and will be ordered to active duty for a period of 15-24 months. After fifteen months' service those so desiring may request an additional year of active duty and apply for permanent retention in the services as career officers. Those who do not desire to remain as career officers must accept a commission in the Reserve of the appropriate service and remain in the Reserve at least until the sixth anniversary of their first commission. Reserve Officers are not called to active duty except during a declared emergency or war, unless at their own request.

A second type of officer candidate in the NROTC is the Contract NROTC Student. These students are selected from qualified stu-

dents regularly enrolled in Duke University. They have the status of civilians who have entered into a mutual contract with the Navy. They do not receive the compensation or benefits paid the Regular NROTC Student, but are furnished uniforms, Naval Science textbooks and equipment; and a subsistence allowance (currently 90 cents per day) during the final two years of NROTC training. Contract students make one training cruise, during which they receive active duty pay. Contract students on graduation must accept a commission in the Naval or Marine Corps Reserve, but may, if they so desire and their services are required, request active duty and a commission in USN or USMC. If ordered to active duty they then are eligible for selection as career officers under the same provisions as graduating NROTC Regulars.

Under the provisions of the Selective Service Act of 1948, Regular NROTC Students who serve a period of active duty as an integral part of their training under Public Law 729 are deferred from Selective Service. Contract Students, by virtue of an agreement to accept a commission on graduation and to serve on active duty if required, are deferred from Selective Service. All NROTC Students are considered on *inactive* duty in the Naval Reserve while in college, and such service may *not* be counted for exemption or deferment should a student be separated from the program for any reason.

**THE AIR FORCE RESERVE:** The unit functions as a regular department of instruction known as the Department of Air Science. It selects and trains students who possess the requisite character, intelligence, desire, and sense of duty to become Air Force Officers.

For enrollment in the Basic Course (freshman and sophomore years) the student must be a male citizen of the United States; be physically qualified under standards prescribed by the Air Force. Due allowance will be made for defects which are correctible prior to the student's eligibility for appointment as a commissioned officer; be accepted by the institution as a regularly enrolled student; be not less than 14 years of age and not have reached 23 years of age at the time of enrollment; and successfully complete such general survey and screening tests as may be prescribed.

For enrollment in the Advanced Course (junior and senior years) the student must have successfully completed the Basic Course or have had at least one year of honorable service; execute a written agreement with the government to complete the Advanced Course, contingent upon remaining in school, and to attend the Advanced Summer Camp at the time specified; not have reached 27 years of age at the time of initial enrollment in the Advanced Course; successfully complete such general survey and screening tests as may be prescribed; and be selected by the Professor of Air Science and Tactics and the appropriate authority of the institution.

All uniforms, texts, and training equipment required for the Air Science Course are furnished at government expense, and students are paid a total of approximately \$600 for the two years of the Advanced Course.

Upon graduation and completion of the Advanced Course, students will be offered commissions as Second Lieutenants in the Air Force Reserve. Outstanding students will be offered lifetime careers in the Regular Air Force. Flying training is available after graduation for those who desire it and are physically qualified.

A student enrolled in Air Force ROTC is eligible for deferment from the Draft.

See the special notice on the back cover.
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# The Degree of Bachelor of Science in Engineering



THE studies in the College of Engineering are designed for students who are preparing for civil, electrical, or mechanical engineering as a profession. These studies lead to the following degrees: B.S. in C.E., B.S. in E.E., and B.S. in M.E. All curricula of the College are fully accredited by the Engineers' Council for Professional Development.

## *Uniform Requirements*

Each of these degrees requires 148 semester hours of work, four of which are in physical education. A student must have at least a C average both for the entire program and in his senior year.

Besides the courses in their special fields, the three departments of the College—the Civil, the Electrical, and the Mechanical—require (1) a uniform program during the student's first year and (2) supplementary work in general courses throughout his last three years. The general courses are listed below. The special program of each department is given in the section of this Bulletin devoted to the specific department.

Air Force Reserve Officers' Training Corps and Naval Reserve Officers' Training Corps students who are majoring in engineering take the standard programs of their departments of specialization with certain exceptions that are noted under the respective departments.

## *General Courses of Instruction*

### REQUIRED NONENGINEERING SUBJECTS

CHEM. 1-2. GENERAL INORGANIC CHEMISTRY.—Lectures, recitations, and laboratory work on the elementary principles of chemistry and on the occurrence, preparation, properties, and uses of the elements and their compounds. One lecture, two recitations, and three laboratory hours, throughout the year. 8 s.h.

ECON. 51-52. PRINCIPLES OF ECONOMICS.—For sophomores. 6 s.h.

ENGL. L. ENGLISH FUNDAMENTALS.—Required of freshmen whose scores on the placement tests indicate that they are not ready for English 1. Students who fail in English L must repeat the course. Students who have earned credit in English L must also take English 1 and 2. 3 s.h.

ENGL. 1-2. ENGLISH COMPOSITION.—Required of all freshmen. 6 s.h.

ENGL. E93. ADVANCED COMPOSITION FOR ENGINEERS.—Reports, descriptions, technical investigations, etc. 3 s.h.

ENGL. 151. ESSENTIALS OF PUBLIC SPEAKING.—A basic course designed to give the poise necessary to speak freely before an audience. Particular attention on speech materials and oral presentation. 3 s.h.

HIST. E1-2. THE UNITED STATES IN THE WORLD TODAY.—Designed for students in the College of Engineering. First semester: the rise of national states in Western Europe and other circumstances attending the discovery and settlement of the New World; the foundation of American institutions; the establishment of the Federal Republic; the frontier, the westward movement, and contemporary international developments; the Civil War; the growth of industry and its influence on society; the Spanish-American War and the emergence of the United States as a world power. Second semester: the growing interdependence of the Western Nations in the twentieth century; their influence throughout the world; the participation of the United States in the World Wars, and the resulting problems of today. 6 s.h.

MATH. 1. INTERMEDIATE ALGEBRA.—Elementary topics, factoring, fractions, linear equations in one, two, and three unknowns, functions and graphs, exponents and radicals, elements of quadratic equations. Prerequisite: one unit in algebra and one in geometry. Required before Math. 5 when necessary. 3 s.h.

MATH. 5. COLLEGE ALGEBRA.—Advanced topics in quadratic equations, systems involving quadratics, variation, binomial theorem, progressions, inequalities, theory of equations, permutations and combinations, probability, determinants, partial fractions. This course and Mathematics 6 may be taken concurrently. 3 s.h.

MATH. 6. PLANE TRIGONOMETRY.—Logarithms, right and oblique triangles, radian measure, graphs of trigonometric functions, inverse trigonometric functions, trigonometric identities and equations, complex numbers. This course and Mathematics 5 may be taken concurrently. 3 s.h.

MATH. 50. PLANE ANALYTIC GEOMETRY.—Rectangular and polar coordinates, loci, straight lines, conic sections. This course and Mathematics 51 may be taken concurrently. Prerequisites: Mathematics 5 and 6. 3 s.h.

MATH. 51. CALCULUS I.—Differentiation of elementary functions, curve tracing, maxima and minima, motion. Must be preceded or accompanied by Mathematics 50. 3 s.h.

MATH. 52. CALCULUS II.—Integration of elementary functions, areas, solids of revolution, length of arc, surfaces of revolution, centroids, moments of inertia, pressure, curvature, indeterminate forms. Prerequisite: Mathematics 51. 3 s.h.

MATH. 53. CALCULUS III.—Introduction to solid analytic geometry, partial differentiation, multiple integrals, series, introduction to differential equations. Prerequisite: Mathematics 52. 3 s.h.

MATH. 131. ELEMENTARY DIFFERENTIAL EQUATIONS.—Solution of elementary types; formation and integration of equations arising in applications. Prerequisite: Mathematics 52. 3 s.h.

PHYS. 51-52. GENERAL PHYSICS.—Treats the basic principles of general physics in a more quantitative manner than Physics 1-2. Not open for credit to students who have taken Physics 1-2. Four lecture-recitations and one three-hour laboratory period each week. Prerequisite: Mathematics 5-6 or equivalent (Mathematics 5 may be taken concurrently). 10 s.h.

### AIR SCIENCE COURSES

The following courses are required of students in the Air Force Reserve Officers' Training Corps, as outlined in the various curricula:

## DUKE UNIVERSITY

## BASIC COURSES

AS 1-2. AIR GEOGRAPHY.—Geography from the military point of view. Determining factors of a nation's military capacity: population, economic sufficiency, technology, organization, political behavior. Geographic features important in air planning, air transportation and communication. 4 s.h. (W) (Prohibits credit for Economics 115 or 116.)

AS 51-52. AIR POWER CONCEPTS.—The Armed Forces organizational structure; map interpretation and serial navigation; meteorology; aerodynamics and propulsion; the uses of air power. Prerequisites: AS 1-2 or equivalent. 4 s.h. (W)

## ADVANCED COURSES

Students continuing in Air Science pursue either Flight Operations or General Technical Option.

## FLIGHT OPERATIONS

AS 121-122. FLIGHT OPERATIONS.—Provides future officers with a theoretical background in the academic phases of pilot and observer training conducted by the Air Training Command: theory and principles involved in the operation of aircraft, in Air Force administration, and in the tactics and techniques of flying. The fundamentals of flying, administration, and tactics. Prerequisites: AS 1-2 and 51-52 or equivalent. 8 s.h. (W)

AS 221-222. ADVANCED FLIGHT OPERATIONS.—Continuation of AS 121-122 with emphasis on electronic and radar navigation and bombardment; electrical countermeasures and problems of all-weather flight operations. Officer orientation comprises military management, law, administration, and related topics. Prerequisites: AS 1-2, 51-52 or equivalent, and 121-122. 8 s.h. (W)

## GENERAL TECHNICAL OPTION

AS 131-132. AIR FORCE TECHNOLOGY.—Presents the relationship of technical studies in science, mathematics, and engineering to the operation and development of the Air Force so that the student may apply his academic specialty to a technical military specialty. Orientation in basic air operations, navigation, and meteorology. Prerequisites: AS 1-2 and 51-52 or equivalent. 8 s.h. (W)

AS 231-232. ADVANCED AIR FORCE TECHNOLOGY.—Continuation of AS 131-132 with emphasis on more specialized technical developments: new metals and plastics, aircraft and aerodynamics, engines and propulsion units, armament and weapons, guided missiles and nuclear energy. Officer orientation comprises military management, law, administration and related topics. Prerequisites: AS 1-2, 51-52 or equivalent, and 131-132. 8 s.h. (W)

## NAVAL SCIENCE COURSES

The following courses are required of students in the Naval Reserve Officers' Training Corps, as outlined in the various curricula:

(Standardized titles and designators for courses are established by the Bureau of Naval Personnel for use at the 52 NROTC Institutions. The first digit indicates the year of the course; the second digit indicates whether semester or quarter (0 for semester, 1 for quarter); the third digit indicates the semester or quarter of school year in which offered. Specialized courses for Marine Corps officer candidates are indicated by the letter "M" after the designator, and substitute for the basic course of the same number.)

NS-101. NAVAL ORIENTATION.—Organization for national security; the naval establishment and the operating forces; naval customs, traditions, regulations; basic characteristics, capabilities, and limitations of naval vessel types; nomenclature; introduction to carrier air, surface, undersea, and amphibious warfare; basic leadership. 3 s.h.

NS-102. NAVAL ORIENTATION.—American sea power since 1775; the elements of sea power; applications of sea power in the two World Wars; deck seamanship. rules of the nautical road. naval formations and maneuvers. 3 s.h.

NS-201. NAVAL WEAPONS.—Evolution of naval ordnance; types and properties of explosives; principles in design and assembly of guns, ammunition, fuses; automatic weapons; basic designs in torpedoes, mines, anti-submarine devices, rockets; principles in the control of fire of naval weapons against air, surface, and underwater targets; nuclear explosives. 3 s.h.

NS-202. NAVAL WEAPONS.—The elements in the problem of control of naval gun fire, the principles of mechanical and electronic solution of the problems; basic principles, capabilities and limitations of radar, sonar, and guided missiles; shore bombardment. 3 s.h.

NS-301. NAVIGATION.—Magnetic and gyro compass; principles of chart construction; the sailings and dead reckoning; piloting; electronic and radar navigation; relative motion; rules of the nautical road; basis aerology and meteorology; maneuvering in storm areas. 3 s.h.

NS-302. NAVIGATION.—Nautical astronomy including actual and apparent motion of earth, celestial coordinates, time systems, solutions of astronomical triangle, and observations for lines of position; use of the sextant; identification of stars and planets; complete day's work in practical navigation. 3 s.h.

NS-302M. HISTORY OF THE ART OF WAR.—The development of tactics and material as shown by decisive battles of history; historical causes and effects of wars; the development of United States military policy; total war; briefs of campaigns of World War II. 3 s.h.

NS-401E. NAVAL MACHINERY, SHIP STABILITY.—Applications of standard steam, electrical, and internal combustion machinery for marine propulsion and ship operation; the principles of ship stability and buoyancy in the practice of ship design and in the practice of damage control. 1 s.h.

NS-401M. UNITED STATES MILITARY HISTORY AND POLICY.—The development of U. S. military policy, the tactics of U. S. forces in selected battles. current policy and functions of the armed services. 3 s.h.

NS-402M. AMPHIBIOUS WARFARE.—History of amphibious warfare and its development, principles of amphibious techniques, and applications of these principles in selected examples. 3 s.h.

## *General Engineering Subjects*

1. ENGINEERING DRAWING.—The study of mechanical drawing with emphasis on third angle projection, pictorial drawing, dimensioning, working drawings. pencil and ink techniques. 2 s.h.

2. DESCRIPTIVE GEOMETRY.—A study of drawing board geometry with emphasis on line and plane problems, developments, and intersections. Further emphasis on drawing techniques. Prerequisite: GE 1. 2 s.h.

57. STATICS.—Concurrent forces, parallel forces, nonconcurrent and nonparallel forces, centroids, friction, moment of inertia. Prerequisite: GE 1. Mathematics 52 concurrent. 3 s.h.

58. DYNAMICS.—Translation, rotation, work, energy, and momentum. Prerequisites: GE 57 and Mathematics 52. 3 s.h.

101. \*CONSTRUCTION METHODS.—Principles of scientific management as set forth by Gilbreth and Taylor; selection of materials and accumulation of cost data; use of modern equipment and methods; job design, description, selection and placement of personnel. Prerequisite: Junior standing. 3 s.h.

102. \*MOTION AND TIME STUDY.—Fundamentals of stop-watch time study; effort (tempo) rating; uses of time study, and relationships between time study, motion study, and wage incentives; micromotion study; motion economy principles and their applications; standard data—derivation and application. Prerequisite: Junior standing. 3 s.h.

107. STRENGTH OF MATERIALS.—Elastic bodies under stress; flexure of simple, overhanging, fixed, and continuous beams; columns; combined stresses, etc. For C.E. students, the laboratory work is included in course C.E. 118. Other students should take course GE 109 for laboratory. Prerequisites: GE 57, Mathematics 52. 3 s.h.

109. STRENGTH OF MATERIALS LABORATORY.—Study and use of testing machines and strain gages. Tests to determine significant physical properties of the common engineering materials. Experimental verification of the elementary theory of structural members. Must be preceded or accompanied by GE 107. 1 s.h.

128. HYDRAULICS.—Elementary principles of hydromechanics. Application to engineering problems of hydrostatics and of the principles of energy, continuity, and momentum relating to flow. The effects of gravity and viscosity on fluid motion. Dimensional analysis and dynamic similarity; hydraulic measuring devices; steady flow in closed conduits and in open channels. Prerequisite: GE 58 or ME 52. 3 s.h.

\* Offered only upon sufficient demand; enrollment limited.



# Department of Civil Engineering



HAROLD CRUSIUS BIRD, Chairman  
*Professor*

WILLIAM HOLLAND HALL  
*Professor*

WILLIAM BREWSTER SNOW  
*Associate Professor*

HOWARD N. HAINES  
*Assistant Professor*

RALPH E. LEWIS  
*Assistant Professor*

AUBREY E. PALMER  
*Assistant Professor*

JAMES WESLEY WILLIAMS  
*Assistant Professor*

CHANDLER WILCOX BROWN  
*Instructor*

ARTHUR REMINGTON WHITE, JR.  
*Instructor*

THE work of a civil engineer may be divided into four major fields: sanitation—dealing with water works, sewerage systems, and garbage disposal; hydraulics—dealing with flood control, river improvements, irrigation, drainage, and water power; transportation—dealing with railroads, highways, airports, waterways, park systems, traffic control, and city planning; structures—dealing with bridges, buildings, foundations, dams, tunnels, tanks, bins, and various industrial structures. The concern of a civil engineer is primarily with design and construction, although often his responsibility includes maintenance. His undergraduate education comprises scientific, technical, civic, and cultural subjects. In order that he may become qualified to assume responsible charge of engineering work, he should supplement this instruction with progressive study after he graduates and while he is securing his practical experience.

The various facilities of the department are described below.

## HIGHWAY MATERIALS

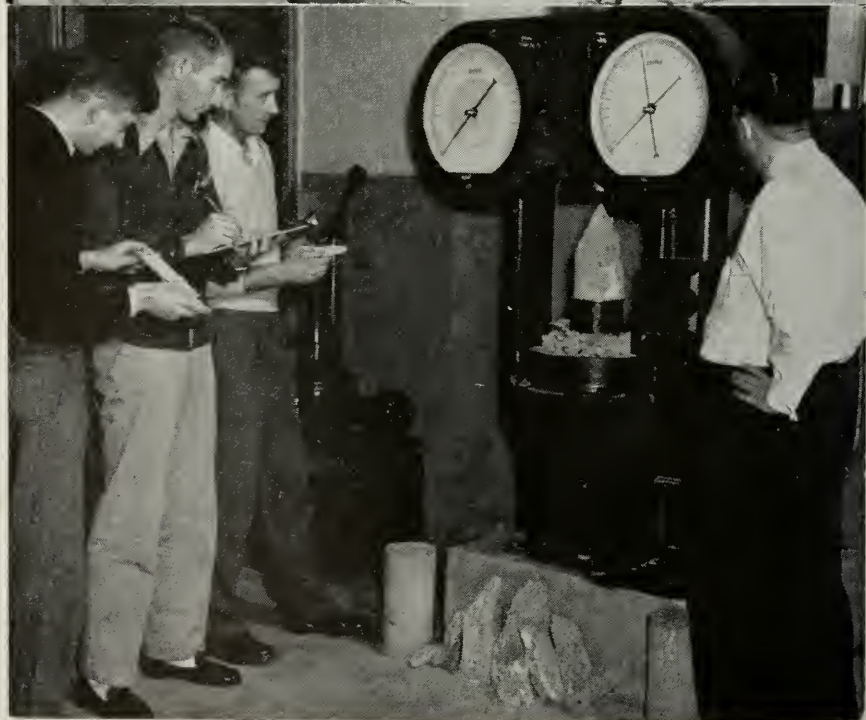
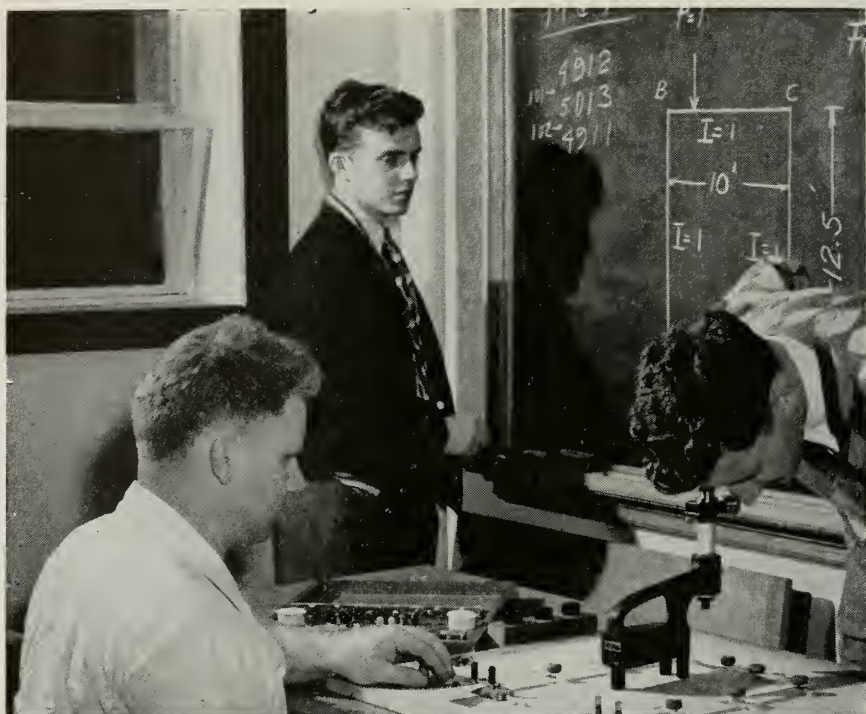
Complete equipment is available for the preparation and routine testing of aggregates, cement, and bituminous materials. There is also a Hubbard stability machine for additional tests.

## SANITARY ENGINEERING

In the sanitary laboratory there is complete equipment for performing the physical, chemical, bacteriological, and microscopic tests as outlined by the American Public Health Association. Different types of water current meters are available for work in stream gauging.

## SURVEYING

The department has an unusually modern and representative collection of transits, levels, plane tables, accessory equipment, as well as a precise level and theodolite.



### CIVIL ENGINEERING DRAFTING ROOM

A special drawing room has been set aside for upperclassmen in civil engineering. The room is specially illuminated with fluorescent lights and has properly conditioned two-toned walls to relieve eye strain. Filing cabinets for storing each student's equipment, eight large-sized universal drafting machines, numerous smaller-sized ones, planimeters, curves, and other accessories are readily available.

### STRESS LABORATORIES

For advanced instruction in stress analysis there are various polariscopes with facilities for taking and developing pictures, large-sized Begg's deformeter, loading frames, and miscellaneous tools for preparing accurate models for testing. Electric calculating machines are to be found in an adjoining room so that the students may more readily compare calculated and experimental results.

### CEMENT AND CONCRETE TESTING

For the testing of cement, fine and coarse aggregates, and concrete, two rooms and an adjoining closet are provided, the closet being equipped with temperature and moisture control. In addition to the small accessories there is an automatic shot-testing briquette machine, flow table, Ro-tap shaker, steam baths, unit weight measures, capping devices, special equipment for making the flexural test, as well as a new 300,000-pound hydraulic compression machine.

### SOIL TESTING

For the classification of soils there is standard equipment for finding the liquid limit, plastic limit, shrinkage limit, field moisture equivalent, centrifuge moisture equivalent, specific gravity, sieve analysis using Ro-tap shaker, and hydrometer analysis using a constant temperature bath. In making foundation studies, permeability is measured by constant and variable head permeameters and by horizontal capillarity; shearing values are determined by unconfined compression tests, four modern shear machines as well as by two triaxial shear machines; bearings values are found by the Proctor and California bearing tests; consolidation and settlement forecasts are made from data secured on three consolidation machines. New laboratory tables will accommodate twenty students. Drying racks, electric ovens, and other accessories of the latest types are to be found in this laboratory. Adjacent to the main laboratory are two smaller rooms available for research work in soils.

### MATERIALS LABORATORY

This laboratory is equipped to give instruction in the basic principles of stress and strain and for the testing of structural members. Its facilities are adequate for both graduate and undergraduate instruc-

tion. Included in this laboratory are three universal testing machines with capacities from 5,000 to 150,000 pounds; various hardness testers; machines for torsion, fatigue, and impact; calibration apparatus; and a variety of modern strain gauges of direct acting mechanical and electric-resistance types.

## *Program of Studies for the Degree of Bachelor of Science in Civil Engineering*

### *Freshman Year*

FIRST SEMESTER			SECOND SEMESTER		
		S.H.			S.H.
Math 5	College Algebra .....	3	Math 50	Analytic Geometry .....	3
Math 6	Trigonometry .....	3	Math 51	Calculus I .....	3
Chem 1	Chemistry .....	4	Chem 2	Chemistry .....	4
Engl 1	English Composition .....	3	Engl 2	English Composition .....	3
Hist E1	History .....	3	Hist E2	History .....	3
GE 1	Drawing .....	2	GE 2	Descriptive Geometry .....	2
	Physical Education .....	1		Physical Education .....	1
		19			19

For Air Force ROTC students AS 1 (2 s.h.) is substituted for Hist E1 and AS 2 (2 s.h.) is substituted for Hist E2 above.

For Naval ROTC students NS 101 (3 s.h.) is substituted for Hist E1 and NS 102 (3 s.h.) is substituted for Hist E2 above.

### *Sophomore Year*

FIRST SEMESTER			SECOND SEMESTER		
		S.H.			S.H.
Math 52	Calculus II .....	3	Math 53	Calculus III .....	3
Phys 51	Physics .....	5	Phys 52	Physics .....	5
Econ 51	Economics .....	3	Econ 52	Economics .....	3
GE 57	Statics .....	3	GE 107	Strength of Materials .....	3
CE 61	Surveying .....	4	CE 62	Surveying .....	4
	Physical Education .....	1		Physical Education .....	1
		19			19

For Air Force ROTC students AS 51-52 (4 s.h.) are substituted for Econ 51-52 above.

For Naval ROTC students NS 201 (3 s.h.) and NS 202 (3 s.h.) are substituted for Econ 51-52 above.

### *Junior Year*

FIRST SEMESTER			SECOND SEMESTER		
		S.H.			S.H.
Engl 93	Advanced Composition .....	3	Engl 151	Public Speaking .....	3
GE 58	Dynamics .....	3	GE 128	Hydraulics .....	3
CE 131	Structures .....	5	CE 132	Structures .....	5
CE 113	Route Surveying .....	3	CE 118	Materials .....	3
EE 123	Electric Circuits .....	4	EE 124	Electric Machinery .....	4
		18			18

For Air Force ROTC students AS 121-122 (8 s.h.) or AS 131-132 (8 s.h.) are substituted for Engl 93 and Engl 151 above.

For Naval ROTC students NS 301 (3 s.h.) and NS 302 (3 s.h.) are substituted for Engl 93 and Engl 151 above.



*Senior Year*

## FIRST SEMESTER

		S.H.
CE 123	Water Supply .....	4
CE 135	Soils .....	3
CE 133	Reinforced Concrete .....	4
ME 103	Heat Power .....	3
ME 115	Mech. Eng. Laboratory ....	1
	Elective (Non-Technical) ..	3
	—	—
		18

## SECOND SEMESTER

		S.H.
CE 124	Water Purification .....	3
CE 116	Highways .....	3
CE 140	Indeterminate Structures ..	3
ME 104	Heat Power .....	3
ME 116	Mech. Eng. Laboratory ....	1
	Civil Eng. Elective.....	2
	Elective (Non-Technical) ..	3
	—	—
		18

For Air Force ROTC students AS 221-222 (8 s.h.) or AS 231-232 (8 s.h.) are substituted for the two non-technical electives.

For Naval ROTC students who are candidates for a Navy commission NS 401E (1 s.h.) is added to the second semester program.

For Naval ROTC students who are candidates for a Marine Corps commission NS 401M (3 s.h.) and NS 402M (3 s.h.) are substituted for the two non-technical electives above.

*Courses of Instruction*

61. PLANE SURVEYING.—Use of instruments; transit, stadia and compass surveying; determination of meridian by observation on Polaris; differential and profile leveling; setting grade stakes; calculation of bearings, latitudes, departures and areas; methods of plotting; survey and plot of portions of campus by stadia, and transit and tape; care and adjustment of instruments. Prerequisites: GE 1 and Math 6. 4 s.h. MR. BROWN

62. ADVANCED SURVEYING.—Simple triangulation; topographic surveying using stadia and plane table; laying out and division of land; public land system; calculations; grading plans and quantities; determination of azimuth by H.O. 211. Prerequisite: CE 61. 4 s.h. MR. BROWN

108. \*ADVANCED STRENGTH OF MATERIALS.—Applications of Mohr's circle, deflections, and energy of strain to advanced problems. Prerequisite: GE 107. 3 s.h. ASSISTANT PROFESSOR WILLIAMS

S110. PLANE SURVEYING.—The equivalent of CE 61 given especially for students in forestry. See *Bulletin of Summer Session*. 4 s.h. MR. BROWN

113. ROUTE SURVEYING.—Thorough drill in the calculation and laying out of simple, compound, and easement curves; widening of curves; vertical curves; setting slope stakes; ordinary earthwork computations and mass diagrams. Prerequisite: CE 61. 3 s.h. ASSISTANT PROFESSOR WILLIAMS

116. HIGHWAY ENGINEERING.—Location, design, construction and maintenance of highways and city streets; soil stabilization; traffic studies; economics of planning and design. Prerequisites: CE 113, CE 135. 3 s.h. ASSISTANT PROFESSOR WILLIAMS

118. MATERIALS OF ENGINEERING.—Study and testing of materials commonly used in civil engineering. The content of course GE 109 and standard tests to determine significant physical properties of cementing materials and aggregates. The design and proportioning of concrete mixtures. Prerequisite: GE 107. 3 s.h. ASSISTANT PROFESSOR WILLIAMS

120. \*ENGINEERING STATISTICS.—Statistical methods applied to engineering problems. Typical engineering data analyzed to illustrate arithmetically and geometrically normal distributions; binomial distribution; Poisson's distribution. Testing data of engineering materials and the use of student's distribution. Sequential analysis and control of production quality. 3 s.h. ASSOCIATE PROFESSOR SNOW

\* Offered only upon sufficient demand; enrollment limited.



121. \*HYDROLOGY.—Fundamentals of meteorology; precipitation; evaporation. Ground water development. Stream flow and stream gaging. Hydrograph analysis. Flood control. Field trips to be arranged. Prerequisite: GE 128. 3 s.h.

ASSOCIATE PROFESSOR SNOW

123. WATER SUPPLY AND SEWAGE.—Statistical analysis of rainfall and run-off records; population estimation; analysis of the yield of watersheds and storage requirement; design of water distribution systems; design of sanitary and storm sewerage systems. Prerequisite: GE 128. 4 s.h.

ASSOCIATE PROFESSOR SNOW

124. WATER PURIFICATION AND SEWAGE TREATMENT.—Chemical and bacteriological analysis of water and sewage effluents; design of water purification treatment systems; design of sewage treatment plants. Prerequisite: CE 123. 3 s.h.

ASSOCIATE PROFESSOR SNOW

128. \*INDUSTRIAL WATER SUPPLIES.—Water quality for industrial uses. Analytical techniques and interpretation of results. Boiler feed water requirements; softening; ion exchange; deaeration, priming; foaming; corrosion; embrittlement. Control of treatment processes. Prerequisite: Chemistry 1-2. 3 s.h.

ASSOCIATE PROFESSOR SNOW

129-130. \*ELEMENTARY STRUCTURES.—Stresses in beams and trusses for fixed and moving loads. Deflection of beams and trusses. Design of tension, compression, and flexural members; connections; and plate girders. Design of reinforced concrete beams, slabs, columns, footings, and retaining walls. (For students not majoring in Structural Engineering.) Prerequisite: GE 107. 6 s.h.

ASSISTANT PROFESSOR PALMER

131. STRUCTURES.—ANALYSIS AND ELEMENTARY DESIGN.—Stresses in roofs, parallel and inclined chord bridges, including sub-divided panels, by algebraic and graphic methods under all conditions of loading; shear and moments in frames and bents; influence lines; Williot diagram. Structural drafting; details in steel and wood; methods of fabrication and erection. Prerequisite: GE 107. 5 s.h.

ASSISTANT PROFESSOR PALMER

132. STRUCTURES.—DESIGN.—Tension, compression, flexural members, end posts, eccentric connections, unsymmetrical bending; riveted and welded plate girders; trusses and office building frames; wind analysis. Design and detail drawings. Prerequisite: CE 131. 5 s.h.

ASSISTANT PROFESSOR PALMER

133. REINFORCED CONCRETE.—Theory and design of reinforced concrete beams, slabs, and columns including eccentric loads; footings; retaining walls. Prerequisite: GE 107. 4 s.h.

PROFESSOR BIRD

135. SOIL MECHANICS.—Identification and classification; flow nets; frost action; stability of foundations, cuts and embankments, and retaining walls; settlement. Laboratory includes identification, permeability, shear, unconfined compression, consolidation and compaction tests. Prerequisite: GE 107. 3 s.h.

PROFESSOR BIRD

137-138. \*SEMINAR.—Students are required to make reports and to talk on current engineering literature or on such other topics as may be assigned. 2 s.h.

ASSISTANT PROFESSOR PALMER

140. INDETERMINATE STRUCTURES.—Application of least work, slope deflection, moment distribution, and column analogy. Analytic, graphic, and experimental methods are used. Prerequisites: CE 131, CE 133. 3 s.h.

PROFESSOR BIRD

142. \*HYDRAULIC ENGINEERING.—Static and dynamical principles of fluids applied to specific engineering problems. Effects of gravity, viscosity, compressibility, and surface tension on fluid motion in closed conduits and open

\* Offered only upon sufficient demand; enrollment limited.

channels; surface and form resistance; dimensional analysis and theory of models. Non-uniform flow in open channels. Hydraulic jump, backwater curves. Hydraulic problems of flood control, flood routing. Dam design. Prerequisite: GE 128 or ME 105. 3 s.h.

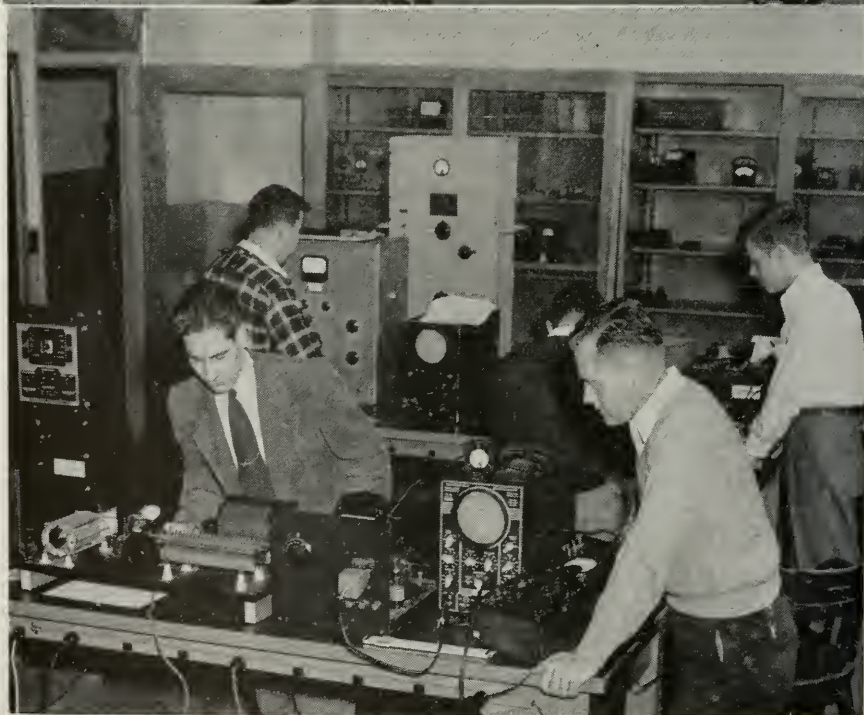
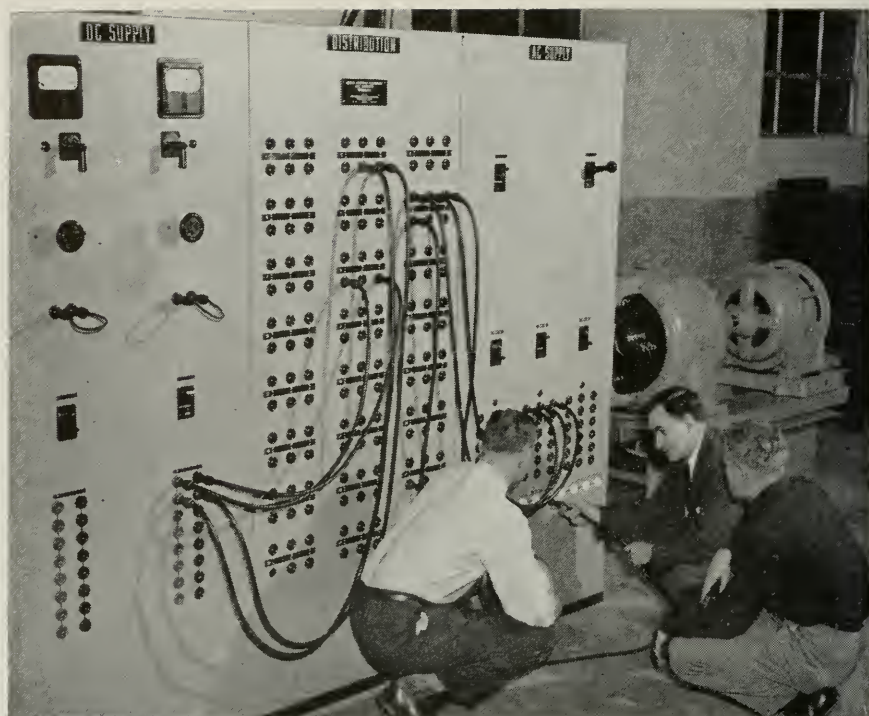
ASSISTANT PROFESSOR WILLIAMS

143-144. PROJECTS IN CIVIL ENGINEERING.—This course may be assigned by the Chairman of the Department to certain seniors who have shown an aptitude for research in one distinct field of civil engineering, in which case it may be substituted for certain general civil engineering courses. 2-6 s.h.

STAFF

146. CIVIL ENGINEERING PROBLEMS.—Professional aspects of civil engineering practice. Selected problems in analysis and design, considerations of engineering economy, contracts, specifications, and ethics. Seniors only. 2-3 s.h.

ASSISTANT PROFESSOR PALMER



# Department of Electrical Engineering



WALTER JAMES SEELEY, Chairman  
*Professor*

OTTO MEIER, JR.  
*Associate Professor*

CHARLES ROWE VAIL  
*Associate Professor*

FRANK NICHOLAS EGERTON  
*Assistant Professor*

EDWARD K. KRAYBILL  
*Assistant Professor*

HARRY A. OWEN  
*Assistant Professor*

THE field of electrical engineering enters into every form of industry and public service where power is utilized, intelligence is transmitted and precise control is exercised over physical, chemical, or mechanical operations. The field of electrical engineering includes the generation, transmission, distribution, and utilization of electric power; communications, embracing telegraphy, telephony, radio, television, and radar; illumination; electrical transportation; and industrial processes and their control. In any one of these varied fields the electrical engineer may engage in work which ranges from highly technical and specialized research and design to manufacturing, maintenance, sales, and administration. As a result of these broad professional demands, the curriculum in electrical engineering has been designed to provide a solid foundation of basic science and fundamental training in the field of electricity, as well as to provide the introduction to humanistic studies which is required of all engineering students at Duke University.

The laboratory facilities of the Department of Electrical Engineering are distributed among various specialized rooms of the electrical engineering wing of the Engineering Building. These facilities are described below.

## THE ELECTRIC CIRCUITS LABORATORY

This laboratory is equipped with all necessary instruments and devices for carrying out experiments on direct-current and power-frequency alternating-current electric circuits and magnetic circuits. Oscillographs are provided for viewing and photographing both steady-state sinusoidal and nonsinusoidal waves and transients. A harmonic generator permits the synthesis of nonsinusoidal waves in both single-phase and polyphase circuits.



### THE ELECTRICAL MEASUREMENTS LABORATORY

Facilities are provided in this laboratory for studying the principles and techniques of measuring electrical quantities throughout the entire frequency spectrum, from direct current and power frequencies through audio and radio frequencies. Instruments of both the indicating and recording types, d-c and a-c bridges, and associated apparatus are included.

### THE ELECTRONICS LABORATORY

The equipment of this laboratory makes possible studies of the physical behavior of high-vacuum and gas-filled electronic tubes and their associated circuits. Included are power-supply units, vacuum-tube voltmeters, oscillators, amplifiers, sweep-circuit generators, cathode-ray oscilloscopes, and a wide variety of electronic tubes.

### THE ELECTRIC MACHINERY LABORATORY

The electric machinery laboratory contains a wide variety of direct-current and single-phase and polyphase alternating-current electric machines, and associated apparatus for loading and testing these machines. Equipment includes a number of a-c to d-c and d-c to d-c motor-generator sets, a sine-wave generator, a synchronous converter, an ignition rectifier, a phase-displacement dynamometer, numerous constant-potential transformers, a constant-current transformer, a high-current testing transformer, induction regulators, a variety of representative d-c and a-c motors and generators, a large selection of fractional-horsepower motors, numerous loading devices, oscillographs, and complete stock of other indicating, recording, and graphic measuring instruments.

### THE COMMUNICATIONS LABORATORY

Complete equipment for the performance of experiments and for all but the most precise measurements in the audio and radio-frequency ranges is provided in this laboratory. Typical of the experiments performed by students with this equipment are: harmonic generation and wave analysis, circuit elements at audio and radio frequencies, square-wave testing, transmission characteristics of an artificial telephone line, impedance matching at audio and radio frequencies, modulation systems, detectors, generation and amplification of audio and radio frequencies, frequency measurements, field intensity measurements, and antenna radiation patterns.

### THE ULTRA-HIGH FREQUENCY LABORATORY

This laboratory is equipped to study the action of circuits and systems in the frequency range from 100 to 5,000 megacycles. Typical



experiments are performed in the study of resonant lines, stub-matching sections, wave guides, resonant cavities, klystrons, magnetrons, horn radiators, parabolic reflectors, etc.

### THE ANECHOIC LABORATORY

As the name implies, the anechoic laboratory is a non-echoing or sound-proof room in which experiments and measurements can be performed on microphones, loudspeakers, and associated acoustical devices. A Western Electric sound level meter makes possible the measurement of the reverberation characteristics of rooms and the absorbing qualities of various materials. At present the experiments with acoustical systems are performed in conjunction with the communications laboratory course. The facilities for a more complete treatment of acoustics are available when the demand arises.

### THE INDUSTRIAL CONTROL LABORATORY

The industrial control laboratory contains typical electromagnetic and electronic industrial control apparatus, and associated testing equipment. Included are a thyatron-controlled resistance welder, industrial X-ray equipment, an electrostatic air cleaner, a general-purpose timer, a light-sensitive photo-troller, an automatic d-c motor speed regulator, an electronic adjustable-speed drive, a high-frequency industrial electronic heating unit, and a variety of servo-mechanism system components.

### THE HIGH-VOLTAGE LABORATORY

Housed in a special room, this laboratory contains equipment for 60-cycle testing up to 100,000 volts, and a surge ("artificial lightning") generator for impulse testing up to 500,000 volts. Auxiliary equipment provides for the control and measurement of the observed phenomena.

### THE STANDARDIZING LABORATORY

This room is provided with standard instruments for the purpose of checking and calibrating instruments used in the other laboratories. Standard cells, potentiometers, voltmeters, ammeters, wattmeters, watt-hour meters, shunts, bridges, and equipment for obtaining standard time and frequency from U. S. Bureau of Standards signals are included.

### AMATEUR RADIO STATION W4AHY

The Engineers' Radio Association is licensed by the Federal Communications Commission to operate and maintain amateur radio station W4AHY. The station is equipped with a 125-watt 80-meter phone and C. W. transmitter, a 150-watt 20-meter phone and C. W.

transmitter, a Collins 30FXB 100-watt 10-meter phone transmitter, Hammarlund Pro and HQ129 receivers, and associated testing and operating equipment. The facilities of the station are used by licensed students to gain practical experience in short wave radio and to communicate with other amateur radio operators the world over.

### THE PHOTOGRAPHIC DARK ROOM

Adjoining the industrial control laboratory is a photographic dark room maintained to meet its specialized needs.

### THE ILLUMINATION LABORATORY

Facilities are available for conducting routine tests on light sources, luminaires, and related devices; for examination of certain phases of current lighting practice; and for research in illumination.

## *Program of Studies for the Degree of Bachelor of Science in Electrical Engineering*

### *Freshman Year*

FIRST SEMESTER			SECOND SEMESTER		
		S.H.			S.H.
Math 5	College Algebra .....	3	Math 50	Analytic Geometry .....	3
Math 6	Trigonometry .....	3	Math 51	Calculus I .....	3
Chem 1	Chemistry .....	4	Chem 2	Chemistry .....	4
Engl 1	English Composition .....	3	Eng 2	English Composition .....	3
Hist E1	History .....	3	Hist E2	History .....	3
GE 1	Drawing .....	2	GE 2	Descriptive Geometry .....	2
	Physical Education .....	1		Physical Education .....	1
		19			19

For Air Force ROTC students AS 1 (2 s.h.) is substituted for Hist E1 and AS 2 (2 s.h.) is substituted for Hist E2 above.

For Naval ROTC students NS 101 (3 s.h.) is substituted for Hist E1 and NS 102 (3 s.h.) is substituted for Hist E2 above.

### *Sophomore Year*

FIRST SEMESTER			SECOND SEMESTER		
		S.H.			S.H.
Math 52	Calculus II .....	3	Math 53	Calculus III .....	3
Phys 51	Physics .....	5	Phys 52	Physics .....	5
Econ 51	Economics .....	3	Econ 52	Economics .....	3
GE 57	Statics .....	3	ME 52	Kinetics—Mechanism .....	4
EE 51	Survey of Electrical Engineering .....	1	EE 52	Fields .....	3
Engl 93	Advanced Composition ...	3		Physical Education .....	1
	Physical Education .....	1			19
		19			

For Air Force ROTC students AS 51 (2 s.h.) and AS 52 (2 s.h.) are substituted for Econ 51-52 above.

For Naval ROTC students NS 201 (3 s.h.) and NS 202 (3 s.h.) are substituted for Econ 51-52 above.

*Junior Year*

## FIRST SEMESTER

			S.H.
EE	101	Circuits .....	3
EE	107	Circuits Laboratory .....	1
EE	105	Measurements .....	4
Math	131	Differential Equations ....	3
ME	103	Heat Power .....	3
ME	115	Mech. Eng. Laboratory ...	1
GE	128	Hydraulics .....	3
			18

## SECOND SEMESTER

			S.H.
EE	102	Circuits .....	3
EE	108	Circuits Laboratory .....	1
EE	106	Electronics .....	4
EE	148	D-C Machinery .....	3
ME	104	Heat Power .....	3
ME	116	Mech. Eng. Laboratory ...	1
Engl	151	Public Speaking .....	3
			18

For Air Force ROTC students AS 121-122 (8 s.h.) or AS 131-132 (8 s.h.) are substituted for GE 128 and Engl 151 above.

For Naval ROTC students NS 301 (3 s.h.) and NS 302 (3 s.h.) are substituted for GE 128 and Engl 151 above.

*Senior Year*

## FIRST SEMESTER

			S.H.
EE	257	A-C Machinery .....	3
EE	163	Machinery Laboratory .....	1
EE	261	Communications .....	4
EE	165	Seminar .....	1
EE	159	Transmission .....	3
EE		Elective .....	3
		Elective (Non-Technical) ..	3
			18

## SECOND SEMESTER

			S.H.
EE	258	A-C Machinery .....	3
EE	164	Machinery Laboratory .....	1
EE	262	Communications .....	4
EE	166	Seminar .....	1
GE	107	Strength of Materials .....	3
GE	109	Materials Laboratory .....	1
EE		Elective .....	2
		Elective (Non-Technical) ..	3
			18

For Air Force ROTC students AS 221-222 (8 s.h.) or AS 231-232 (8 s.h.) are substituted for non-technical electives. GE 128 is to be taken as the EE elective first semester, and English 151 is recommended as the EE elective for the second semester.

For Naval ROTC students who are candidates for a Navy commission NS 401E (1 s.h.) is added to the program of one of the two semesters, and GE 128 (3 s.h.) and Engl 151 (3 s.h.) are substituted for the two non-technical electives above.

For Naval ROTC students who are candidates for a Marine Corps commission NS 401M (3 s.h.) and NS 402M (3 s.h.) are substituted for the two non-technical electives above.

*Courses of Instruction*

51. SURVEY OF ELECTRICAL ENGINEERING.—A course designed to give the student a general survey of the engineering profession, to define the scope of activities of the electrical engineer, and to provide an introduction to engineering problems. One two-hour computation. 1 s.h. ASSISTANT PROFESSOR KRAYBILL

52. ELECTRIC AND MAGNETIC FIELDS.—An introductory course covering a mathematical and physical analysis of energy relations in electrostatic and magneto-static fields; resistance, capacitance and inductance of systems of conductors; systems of electric and magnetic units. Two recitations and one two-hour computation. Prerequisites: EE 51, Mathematics 52. Physics 52, Mathematics 53 concurrently. 3 s.h. ASSOCIATE PROFESSOR VAIL

101-102. CIRCUITS IN ELECTRICAL ENGINEERING.—A two-semester course covering methods of electric and magnetic circuit analysis applicable in all branches of electrical engineering; alternating and direct currents; the algebra of vectors

and complex quantities; networks; nonsinusoidal waves; coupled circuits; transients; polyphase circuits; symmetrical components. Prerequisite: EE 52. EE 107-108 and Mathematics 131 concurrently. 6 s.h.

ASSOCIATE PROFESSOR VAIL

105. ELECTRICAL MEASUREMENTS.—A course covering direct-current and low-frequency measurements; the theory, calibration, and use of laboratory standards and of apparatus for the measurement of potential, current, power and energy; and audio-frequency determination of impedance. Three class sessions and one three-hour laboratory. Prerequisite: EE 52. Mathematics 131 and EE 101 concurrently. 4 s.h.

ASSISTANT PROFESSOR OWEN

106. ELECTRON TUBES AND CIRCUITS.—A course covering electronic emission, static and dynamic tube characteristics, rectification, glow-discharge tubes, amplifiers, oscillators, and other typical circuits. Three class sessions and one three-hour laboratory. Prerequisites: EE 101, EE 105, EE 107. EE 102 and EE 108 concurrently. 4 s.h.

ASSISTANT PROFESSOR OWEN

107-108. CIRCUITS LABORATORY.—A two-semester course designed to provide instruction in electrical laboratory techniques and in the preparation of engineering reports, and to provide experimental verification of the theory of course EE 101-102, with which it should be taken concurrently. One three-hour laboratory. 2 s.h.

ASSOCIATE PROFESSOR VAIL AND ASSISTANT PROFESSOR KRAYBILL

123. PRINCIPLES OF ELECTRIC CIRCUITS.—A course designed especially for students in other branches of engineering, covering the fundamental electric units and both alternating and direct-current circuits. Three class sessions and one three-hour laboratory. Prerequisites: Mathematics 52 and Physics 52. 4 s.h.

ASSISTANT PROFESSORS KRAYBILL AND EGERTON

124. PRINCIPLES OF ELECTRIC MACHINERY.—A course designed especially for students in other branches of engineering, covering the application of the principles of course EE 123 to alternating and direct-current machinery and associated apparatus. Three class sessions and one three-hour laboratory. Prerequisite: EE 123. 4 s.h.

ASSISTANT PROFESSORS KRAYBILL AND EGERTON

148. DIRECT-CURRENT MACHINERY.—A study of the principles which underlie the design and operation of all types of direct-current generators, motors, and associated apparatus. Prerequisites: EE 101 and EE 107. EE 102 and EE 108 concurrently. 3 s.h.

ASSOCIATE PROFESSOR MEIER

158. \*ELECTRIC-POWER SYSTEMS.—A course providing a brief survey of the electric-power industry followed by a consideration of the economic and engineering features of power plant location and design, and by a study of the apparatus utilized in the generation, transmission and distribution of electric power. Prerequisites: EE 148 and ME 104, and permission of instructor. EE 257-258 concurrently. Elective for electrical majors. 3 s.h.

PROFESSOR SEELEY

159. TRANSMISSION.—A development of the theory underlying the transmission of electric energy over conductors at both power and communication frequencies. Two class sessions and one two-hour computation. Prerequisites: EE 101-102, EE 105, EE 106, Mathematics 131. 3 s.h.

PROFESSOR SEELEY

161. \*HIGH-VOLTAGE PHENOMENA.—An introductory study of the high-voltage phenomena and their engineering applications; behavior of gaps and insulators upon application of power-frequency and impulse voltages; corona; properties of insulating materials; high-voltage measurements; elements of high-voltage design. Two class sessions and one three-hour laboratory. Prerequisites: EE 101-102, EE 105, 106, and permission of instructor. Elective for electrical majors. 3 s.h.

ASSOCIATE PROFESSOR VAIL

163-164. ELECTRIC MACHINERY LABORATORY.—A study of the technique of testing electric machines and a thorough analysis of their performance. Concurrent with EE 257-258. One three-hour session, for two semesters. 2 s.h.

ASSOCIATE PROFESSOR MEIER

\* Offered only upon sufficient demand; enrollment limited.



165-166. **ELECTRICAL ENGINEERING SEMINAR.**—A course in which seniors are required to present oral reports and dissertations on material appearing in current engineering literature. Juniors may participate, but without credit. 2 s.h.  
STAFF

171. **\*FUNDAMENTALS OF ILLUMINATION.**—A course designed to familiarize the student with some of the factors that influence seeing; to provide a working knowledge of lighting language, sources, and measuring techniques; and to acquaint the student with the basic factors involved in recommended lighting practice. Two class sessions and one two-hour computation. Prerequisites: EE 101-102 or EE 123, and permission of instructor. Elective. 3 s.h.

ASSISTANT PROFESSOR KRAYBILL

173-174. **\*PROJECTS IN ELECTRICAL ENGINEERING.**—A course which may be undertaken only by seniors who show special aptitude, or who may have had previous experience directly related to the proposed project. The consent of the Chairman of the Department must be obtained before registering. Elective for electrical majors. 3-6 s.h.  
STAFF

180. **\*RADIO-FREQUENCY TRANSMISSION AND PROPAGATION.**—Theory and application of transmission and propagation at high and ultra-high frequencies; impedance-matching elements; coupling devices; cavity resonators; wave guides and antennas. Two class sessions and one three-hour laboratory. Prerequisites: EE 159, EE 261, and permission of instructor. EE 262 concurrently. Elective for electrical majors. 3 s.h.

ASSISTANT PROFESSOR OWEN

197. **\*INDUSTRIAL APPLICATIONS OF ELECTRICAL EQUIPMENT.**—A course of lectures, demonstrations and recitations designed especially for students in other branches of engineering, dealing with the basic principles of utilization of a wide variety of electrical equipment in industrial practice. Emphasis is on industrial control, motor and generator applications, and electronic devices and applications. Prerequisite: EE 124, and permission of instructor. Elective for non-electricals. 3 s.h.

ASSOCIATE PROFESSOR MEIER

198. **\*INDUSTRIAL CONTROL.**—This course, open only to students majoring in electrical engineering, consists of a study of the electromagnetic and electronic control of electric motors in industrial applications. Prerequisites: EE 101-102, EE 106, EE 148, EE 257, and permission of instructor. EE 258 concurrently. Elective for electrical majors. 3 s.h.

ASSOCIATE PROFESSOR MEIER

257-258. **ALTERNATING-CURRENT MACHINERY.**—A two-semester course dealing with the theory underlying the design, construction, and operation of synchronous generators, transformers, polyphase induction motors, synchronous motors, single-phase motors of all types, and converters and rectifiers. Prerequisites: EE 101-102 and EE 148. 6 s.h.

ASSOCIATE PROFESSOR MEIER

261. **COMMUNICATION ENGINEERING.**—An advanced course dealing with the principles underlying radio communication with special emphasis on the development of methods and procedures for the mathematical analysis of electron tube circuits. Included are vacuum tube amplifiers, oscillators, special electron tube circuits, and introduction to pole and zero studies of response and impedance. Three class sessions and one three-hour laboratory. Prerequisites: EE 101-102, EE 105, EE 106, and Mathematics 131. 4 s.h.

ASSISTANT PROFESSOR OWEN

262. **COMMUNICATION ENGINEERING.**—The second half of the course EE 261. Included are rectifiers and filters, amplitude and frequency modulation, demodulation, microwave tubes, propagation of radio waves, antennas. Three class sessions and one three-hour laboratory. Prerequisite: EE 261. 4 s.h.

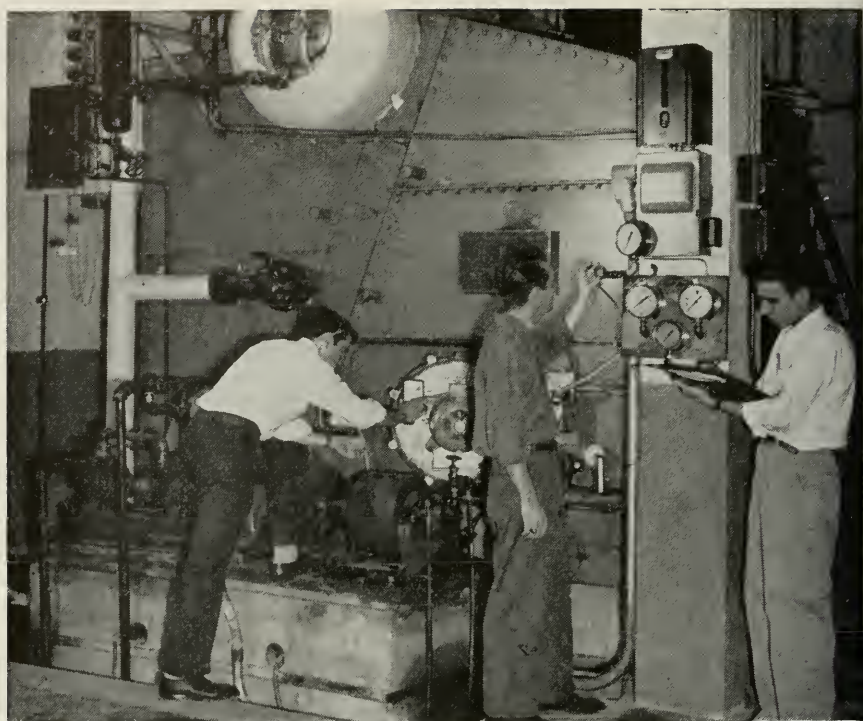
ASSISTANT PROFESSOR OWEN

263-264. **\*OPERATIONAL CIRCUIT ANALYSIS.**—An advanced course covering the mathematical analysis of certain circuits used in electrical engineering, with an introduction to the application of operational calculus to circuit analysis. Prerequisites: EE 101-102, Mathematics 131, and permission of instructor. Elective for electrical majors. 6 s.h.

PROFESSOR SEELEY

\* Offered only upon sufficient demand; enrollment limited.





# Department of Mechanical Engineering



RALPH SYDNEY WILBUR, Chairman  
*Professor*

FRIDERICK JEROME REED  
*Associate Professor*

ERNEST ELSEVIER  
*Assistant Professor*

C. DARBY FULTON, JR.  
*Assistant Professor*

RAY WAITER HOLLAND  
*Assistant Professor*

VAN LESLIE KENYON  
*Assistant Professor*

LESLIE CLIFFORD WILBUR  
*Instructor*

THE profession of mechanical engineering is founded upon the production of power from nature's resources and the application of this power to useful ends. It is a profession with many specialized fields of both theoretical and applied knowledge and techniques. Some of these fields of specialization are combustion, power production engineering, machine and machine-tool design, railway motive power engineering, automotive engineering, heating and air conditioning, refrigeration, and industrial management.

The Department makes no attempt to train specialized engineers during the four-year undergraduate course; rather, a well-balanced fundamental training with applications in the more active fields is its aim. Theoretical training in the classroom is carefully supplemented by application in the laboratory.

The equipment in the mechanical engineering laboratories has been carefully selected and grouped to yield the greatest educational benefit to the student.

## *Power Plant Laboratory*

This laboratory occupies a two-story wing off the main mechanical engineering wing of the Engineering Building. A 3200-pound per hour, automatic, oil-fired Combustion Engineering boiler, designed specifically for the needs of this laboratory, produces steam at 250 pounds pressure and a total temperature of 556° F. This steam is utilized to operate a complete experimental power plant in the same wing. The experimental power plant consists of two 25-kw Westinghouse turbogenerator units, condenser and air ejector with after-condenser, feed-water heater, pumps and accessories, and a control

and instrument board. The electric energy generated operates a synchronous motor and hydraulic dynamometer. Interconnection of piping and controls, and complete instrumentation, enable the simulation and study of any type of power plant in common use.

### *Mechanical Laboratory*

**STEAM EQUIPMENT:** Adjacent to the boiler room are a horizontal Troy engine with shaft cut-off governor, a Troy vertical throttling governing engine, a Sturtevant steam turbine, a condenser and air ejector with after-condenser and accessories, and a boiler feed pump. These may be tested and studied individually or in combinations. Additional equipment for studying flow and quality of steam, an injector, and traps are located in this area.

**INTERNAL COMBUSTION EQUIPMENT:** A section of the west side of the laboratory contains two automotive-type and one tractor-type gasoline engines, with dynamometers, accessories and instruments for determining their characteristics and energy balances; in addition, a small single-cylinder Diesel engine-generator unit, a 6-cylinder Diesel engine-generator unit, and a 4-cylinder gasoline engine-generator unit provide complete coverage of types for thorough study of internal combustion.

**AIR COMPRESSION:** A very complete study of air compression is afforded by the use of a Worthington 8 by 9-inch V-belt a-c motor driven water-cooled compressor and a modern Davey Air-chief V-belt variable speed d-c motor driven air-cooled compressor.

**HYDRAULIC APPARATUS:** A section of the east side and south end of the laboratory contains a Cameron centrifugal pump combined with a series of weirs and orifices, as well as a hydraulic turbine which may be equipped alternately with either a Kaplan or Francis type of wheel. This equipment offers a complete range of experiments and tests in hydraulics and fluid mechanics.

**LUBRICANTS AND FUELS TESTING LABORATORY:** In the south end of the main laboratory are five rooms completely equipped for the study of solid, liquid, and gaseous fuel analysis and calorimetry; lubricant testing; and feed-water analysis.

**INSTRUMENT ROOM:** An instrument room is provided for the storing and maintenance of instruments. Such instruments include steam and internal combustion engine indicators and reducing motions, tachometers and speed counters, planimeters, pressure gauges and gauge testers, thermometers of all types, scales of all types and small tools.

**HEATING, AIR CONDITIONING, AND REFRIGERATION:** A standard type domestic steam generating coal-fired heating boiler

and a forced hot water circulator oil-fired boiler, standard centrifugal fan testing apparatus, equipment for studying the flow of air through ducts, registers and grilles, and two five-horsepower York Freon-12 refrigerating compressors are provided for testing and study in this field.

## *Materials Processing Laboratory*

**MACHINE TOOLS:** Two engine lathes, a universal milling machine, a shaper with slotter attachment, a drill press, a power grinder, and a power hack saw compose the metal-working tools. Such auxiliary attachments as are needed for general-purpose machines are provided for the above machine tools. Woodworking machines that include the lathe, band saw, circular saw and planer, and a disc sander are available for pattern and model construction.

**WELDING EQUIPMENT:** A 200-ampere electric arc welding machine and complete oxy-acetylene welding and cutting equipment are provided for demonstration of these methods of construction and fabrication.

**CASTING EQUIPMENT:** A gas-fired melting furnace and sufficient molding equipment are available for the production of small castings on a demonstration basis.

**METALLOGRAPHIC AND HEAT TREATING EQUIPMENT:** Polishing equipment and a microscope are available for the preparation and examination of metal specimens. Heat treatments may be carried out with the use of a gas-fired heat-treating furnace.

## *Program of Studies for the Degree of Bachelor of Science in Mechanical Engineering*

### *Freshman Year*

FIRST SEMESTER				SECOND SEMESTER			
			S.H.				S.H.
Math 5	College Algebra	.....	3	Math 50	Analytic Geometry	.....	3
Math 6	Trigonometry	.....	3	Math 51	Calculus I	.....	3
Chem 1	Chemistry	.....	4	Chem 2	Chemistry	.....	4
Engl 1	English Composition	....	3	Engl 2	English Composition	....	3
Hist E1	History	.....	3	Hist E2	History	.....	3
GE 1	Drawing	.....	2	GE 2	Descriptive Geometry	....	2
	Physical Education	.....	1		Physical Education	.....	1
<hr/>				<hr/>			
19				19			

For Air Force ROTC students AS 1 (2 s.h.) is substituted for Hist E1 and AS 2 (2 s.h.) is substituted for Hist E2 above.

For Naval ROTC students NS 101 (3 s.h.) is substituted for Hist E1 and NS 102 (3 s.h.) is substituted for Hist E2 above.



*Sophomore Year*

## FIRST SEMESTER

S.H.

Math 52	Calculus II	3
Phys 51	Physics	5
Econ 51	Economics	3
GE 57	Statics	3
ME 53	Materials	3
ME 57	Processes	2
	Physical Education	1

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## SECOND SEMESTER

S.H.

Math 53	Calculus III	3
Phys 52	Physics	5
Econ 52	Economics	3
ME 52	Kinetics-Mechanism	4
Engl 93	Advanced Composition	3
	Physical Education	1

19

For Air Force ROTC students AS 51 (2 s.h.) and AS 52 (2 s.h.) are substituted for Econ 51-52 above.

For Naval ROTC students NC 201 (3 s.h.) and NS 202 (3 s.h.) are substituted for Econ 51-52 above.

*Junior Year*

## FIRST SEMESTER

S.H.

ME 101	Thermodynamics	3
ME 113	Mech. Eng. Laboratory	1
ME 105	Fluid Mechanics	3
GE 107	Strength of Materials	3
GE 109	Materials Laboratory	1
EE 123	Electric Circuits	4
Engl 151	Public Speaking	3

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## SECOND SEMESTER

S.H.

ME 102	Thermodynamics	3
ME 114	Mech. Eng. Laboratory	2
ME 108	Aeronautics	3
ME 106	Heat Transfer	3
ME 150	Machine Design	3
EE 124	Electric Machinery	4

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For Air Force ROTC students AS 121-122 (8 s.h.) or AS 131-132 (8 s.h.) are substituted for Engl 151 and ME 108 above.

For Naval ROTC students NS 301 (3 s.h.) and NS 302 (3 s.h.) are substituted for Engl 151 and ME 108 above.

*Senior Year*

## FIRST SEMESTER

S.H.

ME 151	Machine Design	4
ME 155	Internal Combustion Engines	3
ME 153	Heating—Air Conditioning	3
ME 159	Mech. Eng. Laboratory	2
ME	Engineering Elective	3
	Elective (Non-Technical)	3

18

## SECOND SEMESTER

S.H.

ME 158	Industrial Engineering	3
ME 162	Power Plants	3
ME 154	Refrigeration	3
ME 160	Mech. Eng. Laboratory	2
ME	Engineering Elective	3
	Elective (Non-Technical)	3

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For Air Force ROTC students AS 221-222 (8 s.h.) or AS 231-232 (8 s.h.) are substituted for non-technical electives. Engl 151 and ME 108 are substituted for the technical electives.

For Naval ROTC students who are candidates for a Navy commission NS 401E (1 s.h.) is added to the program of one of the two semesters, and Econ 51-52 (6 s.h.) is substituted for the two non-technical electives above.

For Naval ROTC students who are candidates for a Marine Corps commission NS 401M (3 s.h.) and NS 402M (3 s.h.) are substituted for the two non-technical electives above.



## *Courses of Instruction*

52. **KINETICS-MECHANISM.**—Motions of particles. Applications of Newton's laws of motion to motions of rigid bodies. Work, energy, impulse, and momentum. Linkages, cams, gears, trains of mechanism. Three recitations, three laboratory hours. Prerequisites: GE 2, GE 57, Mathematics 52. 4 s.h.

ASSISTANT PROFESSORS FULTON AND HOLLAND AND MR. L. C. WILBUR

53. **MATERIALS.**—Mechanical properties of materials; elementary metallurgy; heat treatment, properties and selection of iron, steel, copper, brass, aluminum, plastics, and other common materials. Lectures and recitations supplemented with films and demonstrations. Prerequisite: Chemistry 2. 3 s.h.

ASSISTANT PROFESSORS ELSEVIER AND FULTON, MR. L. C. WILBUR

57. **PROCESSES.**—Lectures and recitations covering casting, forging, welding, bending, rolling, drawing, machining, and other common processes. Interchangeable manufacture, metal fits, production methods. Supplemented with films and demonstrations. 2 s.h.

ASSISTANT PROFESSOR FULTON, MR. L. C. WILBUR

101-102. **ENGINEERING THERMODYNAMICS.**—A study of thermodynamic properties and processes of gases, vapor and gas-vapor mixtures; cycles; efficiencies and performance of steam power plant equipment. Three recitations. Prerequisites: Mathematics 52, Physics 52, Chemistry 2. 6 s.h.

PROFESSOR R. S. WILBUR AND MR. L. C. WILBUR

103-104. **HEAT POWER ENGINEERING.**—A short course in engineering thermodynamics with applications to power plant design, for CE and EE students only. Three recitations. Prerequisites: Chemistry 2, Mathematics 52, Physics 52. 6 s.h.

ASSOCIATE PROFESSOR REED, ASSISTANT PROFESSORS FULTON AND KENYON

105. **FLUID MECHANICS.**—Fluid statics; kinematics of fluid flow; application of fluid dynamics theory to flow through orifices, weirs, and pipes; general principles of centrifugal pumps and turbines. Prerequisites: Mathematics 52, Physics 52. 3 s.h.

PROFESSOR WILBUR, ASSISTANT PROFESSOR KENYON AND MR. L. C. WILBUR

106. **HEAT TRANSFER.**—Conduction, radiation and convection; heat transfer to boiling liquids or condensing vapors; over-all transfer of heat, steady state or variable flow. Applications to heat power, heating and air conditioning, and refrigeration. Prerequisites: ME 101 or 103, ME 105 or GE 128. ME 102 or 104 concurrently. May be elected by limited number of CE and EE students. 3 s.h.

ASSOCIATE PROFESSOR REED

108. **AERONAUTICS.**—A general course applying fluid mechanics principles to airfoils, propellers, and the complete airplane. Prerequisite: ME 105. 3 s.h.

ASSISTANT PROFESSOR ELSEVIER

113-114. **JUNIOR MECHANICAL ENGINEERING LABORATORY.**—Open only to mechanical engineering students. First semester, three laboratory hours, devoted to experiments and reports in hydraulics, flue gas analyses, calorific value of fuels. Second semester, six laboratory hours, devoted to experiments and reports related to thermodynamics, such as boiler inspection, air compression, injectors, steam and fuel calorimetry. ME 101-102 concurrently. 3 s.h.

PROFESSOR R. S. WILBUR AND STAFF

115-116. **JUNIOR MECHANICAL ENGINEERING LABORATORY.**—Open only to electrical and civil engineering students. Experiments and reports on measuring instruments and apparatus, flow of air, steam and water, economy of boilers, steam and internal combustion engines. Three laboratory hours. ME 103-104 concurrently. 2 s.h.

PROFESSOR R. S. WILBUR AND STAFF

150-151. **MACHINE DESIGN.**—Application of principles of mechanics, strength of materials, constructive processes and engineering drawing to the design of bolted, riveted and welded connections, pressure vessels and machine elements.

followed by design of at least one complete machine. ME 150 has two recitations and three laboratory hours; ME 151 has two recitations and six laboratory hours. Prerequisites: GE 107, ME 52, ME 53, ME 57. 7 s.h. ASSISTANT PROFESSOR HOLLAND

153-154. HEATING, AIR CONDITIONING AND REFRIGERATION.—Determinations of heat losses and gains; design of steam, hot water and warm air heating and air conditioning systems; panel heating. Fundamentals of refrigeration theory and design. Applications of refrigeration to summer and year round air conditioning; commercial and industrial applications of refrigeration. Prerequisite: ME 106. ME 159-160 concurrently. Two recitations, three laboratory hours. 6 s.h. ASSOCIATE PROFESSOR REED

155. INTERNAL COMBUSTION ENGINES.—Principal cycles; fuels and fuel mixtures; effect of real mixtures on theoretical cycles; combustion; carburetion and fuel injection. Thermodynamic analysis of engine performance. Modern development in the internal combustion engine. Three recitations. Prerequisite: ME 101-102. 3 s.h. ASSISTANT PROFESSOR ELSEVIER

157. \*CENTRIFUGAL PUMPS AND BLOWERS.—A study of the basic principles of design, construction and application of centrifugal pumps and blowers. May be elected by a limited number of mechanical engineering seniors with consent of Chairman of Department. Prerequisite: ME 105. 3 s.h. ASSISTANT PROFESSOR FULTON

158. INDUSTRIAL ENGINEERING.—A study of the industrial growth and present tendencies of productive industries as concerns the engineer. Specific topics treated are: plant location, organization, production and cost controls, wage payment, etc. Seniors only. Three recitations. 3 s.h. ASSISTANT PROFESSORS HOLLAND AND KENYON

159. SENIOR MECHANICAL ENGINEERING LABORATORY.—Tests and reports on performance and economy of internal combustion engines, steam engines and turbines; heat transfer, radiator tests, and energy balances. Required of all seniors in mechanical engineering. Six laboratory hours. Prerequisite: ME 114. ME 153 concurrently. 2 s.h. PROFESSOR R. S. WILBUR AND STAFF

160. SENIOR MECHANICAL ENGINEERING LABORATORY.—Required of all seniors in mechanical engineering. Tests and reports on boiler, engine, turbine, condenser and accessories; heat transfer; refrigeration equipment. Six laboratory hours. Prerequisite: ME 159. ME 154 and ME 162 concurrently. 2 s.h. PROFESSOR R. S. WILBUR AND STAFF

162. POWER PLANT CALCULATIONS.—Study of economic and engineering factors in developing steam power plants. Consideration of the performance of boilers, prime movers, condensers and various auxiliaries in various groupings as they affect the plant heat balance. May be elected by limited number of CE or EE students. Three recitations. Prerequisite: ME 102 or ME 104. ME 160 concurrently. 3 s.h. PROFESSOR R. S. WILBUR

164. \*ENGINEERING ANALYSIS.—A study of a series of engineering problems with particular reference to mathematical and graphical methods of solution and engineering interpretation of results. 3 s.h. MR. L. C. WILBUR

166. \*AIR-CONDITIONING DESIGN.—Analysis of air-conditioning requirements, summer and winter, commercial and industrial. Design of systems and units, and selection of equipment. Open to seniors who have completed ME 153. 3 s.h. ASSOCIATE PROFESSOR REED

197-198. PROJECTS IN MECHANICAL ENGINEERING.—This course may be assigned by the Chairman of the Department to certain seniors who express a desire for such work and who have shown aptitude for research in one distinct field of mechanical engineering. Elective credit for either semester. 3-6 s.h. PROFESSOR R. S. WILBUR AND STAFF

\* Offered only upon sufficient demand; enrollment limited.



The profession of engineering offers greater opportunities today than ever before. In June 1953 American colleges will grant approximately 21,000 engineering degrees. This is a decline of more than 25 per cent from 1952. In June 1954 a further decline will occur when only 17,000 engineering degrees will be granted. At present there is a shortage of 50,000 engineering graduates, and it is estimated that the nation will need 30,000 annually for many years to come. In September 1956, when the present high-school senior will begin his last year of college, this shortage may reach 100,000. The situation is critical not only to industry but to our country in its present defense and security effort to prepare for what the future may hold.

Thus it is clear that today the high-school graduate who is interested in engineering has a unique chance to contribute to the national defense program at the same time that he is equipping himself for a career in an honored profession. He will find a challenge, an opportunity for rapid advancement, and a financial reward unequalled in history.

Duke takes this occasion to make known to you the present critical situation. Please call this bulletin and this announcement to the attention of all young women and men who may be interested.

# BULLETIN OF DUKE UNIVERSITY



## The Summer Session 1953

First Term: June 10 to July 18

Second Term: July 21 to August 28



# Annual Bulletins

FOR GENERAL BULLETIN of Duke University, apply to *The Secretary*, Duke University, Durham, N. C.

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FOR BULLETIN OF THE COLLEGE OF ENGINEERING, apply to *The Secretary*, Duke University, Durham, N. C.

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FOR BULLETIN OF THE SCHOOL OF LAW, apply to *The Dean of the School of Law*, Duke University, Durham, N. C.

FOR BULLETIN OF THE SCHOOL OF MEDICINE, apply to *The Dean of the School of Medicine*, Duke University, Durham, N. C.

FOR BULLETIN OF THE SCHOOL OF NURSING, apply to *The Dean of the School of Nursing*, Duke University, Durham, N. C.

FOR BULLETIN OF THE DIVINITY SCHOOL, apply to *The Dean of the Divinity School*, Duke University, Durham, N. C.

FOR BULLETIN OF THE SCHOOL OF FORESTRY, apply to *The Dean of the School of Forestry*, Duke University, Durham, N. C.

FOR BULLETIN OF THE SUMMER SESSION, apply to *The Director of the Summer Session*, Duke University, Durham, N. C.

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BULLETIN  
OF  
DUKE UNIVERSITY



*The Summer Session 1953*

ANNOUNCEMENTS

First Term: June 10 to July 18

Second Term: July 21 to August 28

DURHAM, NORTH CAROLINA

1953



THE CHAPEL AT DUKE UNIVERSITY

# Calendar of the Summer Session 1953



MAY							JUNE							JULY							AUGUST							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
					1	2		1	2	3	4	5	6				1	2	3	4		2	3	4	5	6	7	8
3	4	5	6	7	8	9	7	8	9	10	11	12	13	5	6	7	8	9	10	11	9	10	11	12	13	14	15	
10	11	12	13	14	15	16	14	15	16	17	18	19	20	12	13	14	15	16	17	18	16	17	18	19	20	21	22	
17	18	19	20	21	22	23	21	22	23	24	25	26	27	19	20	21	22	23	24	25	23	24	25	26	27	28	29	
24	25	26	27	28	29	30	28	29	30					26	27	28	29	30	31		30	31						
31																												

June 9, Tuesday, 9:00 a.m.

Dormitory rooms ready for occupancy.

June 10, Wednesday

Registration for First Term.

June 11, Thursday

Instruction begins in all 6-week courses of the First Term and in Forestry.

June 13, Saturday

All classes meet. Not a holiday.

June 15-July 1, Monday-Wednesday

School for Approved Supply Pastors.

June 16, Tuesday

Instruction begins in Physics S51.

June 23, Tuesday

Instruction begins in all 4-week courses of the First Term in Chemistry, Geology, and Zoology.

July 9, Thursday

Final date for filing with the Dean of the Graduate School statement of intention to complete Master's degree requirements during the First Term, and for filing title of Master's thesis.

July 10, Friday

Graduate reading examinations in Romance Languages. Applicants for these examinations must register in the Graduate School Office not later than July 1.

July 17-18, Friday-Saturday

Final examinations for the First Term.

July 20-24, Monday-Friday

Laboratory Conference for Teachers of Science and Mathematics.

July 21, Tuesday

Registration for the Second Term.

July 22, Wednesday

Instruction begins in all Second Term courses.

July 25, Saturday

All classes meet. Not a holiday.

July 27, Monday

Final date for filing with the Dean of the Graduate School statement of intention to complete Master's degree requirements during the Second Term, and for filing title of Master's thesis.

- August 6-8, Thursday-Saturday  
Conference of the North Carolina English Teachers Association.
- August 15, Saturday  
Final examinations in all 4-week courses of the Second Term in Chemistry, Geology, and Zoology.
- August 21, Friday  
Final examination in Physics S52.
- August 24-28, Monday-Friday  
Sewage Works Operators School.
- August 27-28, Thursday-Friday  
Final examinations in all 6-week courses of the Second Term.
- August 31-September 10, Monday-Thursday  
Special course in Solid Geometry.
- (Classes meet on only those Saturdays designated.)

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# Administrative Officers of the Summer Session



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College of Engineering*

MARY GRACE WILSON, A.M.

*Dean of Undergraduate Women*

# The Summer Session Faculty



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AYCOCK, THOMAS MALCOLM, M.A. <i>Professor of Physical Education</i>	107 Old Gym (W)
BAKER, EDWARD W., Ph.D. <i>Visiting Lecturer in Acarology,</i> <i>U. S. Department of Agriculture, Washington, D. C.</i>	334 Biology
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BERRY, EDWARD WILLARD, Ph.D. <i>Professor of Geology</i>	019 Science (E)
BLACK, MARTIN L., JR., M.B.A., C.P.A. <i>Professor of Accounting</i>	203L Social Science
BLOMQUIST, HUGO LEANDER, Ph.D. <i>Professor of Botany</i>	Duke Marine Laboratory, Beaufort, N. C.
BOLMEIER, EDWARD CLAUDE, Ph.D. <i>Professor of Education</i>	1C1 West Duke (E)
BOOKHOUT, CAZLYN GREEN, Ph.D. <i>Associate Professor of Zoology</i>	Duke Marine Laboratory, Beaufort, N. C.
BOWMAN, FRANCIS EZRA, Ph.D. <i>Associate Professor of English</i>	203 Gray
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CARTER, ALLAN MURRAY, Ph.D. <i>Assistant Professor of Economics</i>	203F Social Science
CARTWRIGHT, WILLIAM H., Ph.D. <i>Professor of Education</i>	1C West Duke (E)
CHAIKEN, LEON EDWARD, B.S., M.F. <i>Associate Professor of Forest Management and Assistant Director of the Forest</i>	305 Social Science
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CORDLE, THOMAS HOWARD, Ph.D. <i>Instructor in Romance Languages</i>	201E Gray
CRAWLEY, HATTIE MILDRED, R.N., B.S. <i>Instructor in Nursing Arts</i>	02A Hospital
DAVIS, GIFFORD, Ph.D. <i>Associate Professor of Romance Languages</i>	201 Gray
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GRANT, RICHARD BABSON, Ph.D. <i>Instructor in Romance Languages</i>	201E Gray
GRAY, IRVING EMERY, Ph.D. <i>Professor of Zoology</i>	Duke Marine Laboratory, Beaufort, N. C.
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HORN, EDWARD C., Ph.D. <i>Assistant Professor of Zoology</i>	224 Biology
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LANDON, CHARLES EARL, Ph.D. <i>Associate Professor of Economics</i>	203C Social Science
LEMERT, BENJAMIN FRANKLIN, Ph.D. <i>Associate Professor of Economics</i>	112 Carr (E)
LUEDECKE, AMANDA, R.N., B.S. <i>Instructor in Psychiatric Nursing</i>	Highland Hospital, Asheville, N. C.
MCKENZIE, LIONEL WILFRED, JR., M.A., B.Litt. <i>Assistant Professor of Economics</i>	203G Social Science
MCLENDON, JONATHON C., Ph.D. <i>Assistant Professor of Education</i>	1D West Duke (F)
MARKMAN, SIDNEY DAVID, Ph.D. <i>Associate Professor of Art History and Archaeology</i>	106 Asbury (E)
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MAXWELL, WILLIAM CARY, Ph.D. <i>Associate Professor of German</i>	106D Social Science
MONTFORT, ROBERT JOHN, B.A. <i>Assistant Professor of Physical Education</i>	107 Old Gym (W)
MYERS, HIRAM EARL, S.T.M., D.D. <i>Professor of Biblical Literature</i>	204 Divinity
NIXON, HERMAN C., Ph.D. <i>Visiting Lecturer in Political Science Vanderbilt University</i>	
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PRITCHARD, A. EARL, Ph.D. <i>Visiting Lecturer in Acarology</i> <i>Division of Entomology and Parasitology,</i> <i>University of California, Berkeley</i>	334 Biology
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SANDERS, CHARLES RICHARD, Ph.D. <i>Professor of English</i>	202 Gray
SAVILLE, MRS. EUGENIA CURTIS, M.A. <i>Assistant Professor of Music</i>	111 Asbury (E)
SAVILLE, LLOYD BLACKSTONE, Ph.D. <i>Associate Professor of Economics</i>	207 Social Science
SAYLOR, JOHN HENRY, Ph.D. <i>Professor of Chemistry</i>	115A Chemistry
SCHETTLER, CLARENCE HENRY, Ph.D. <i>Associate Professor of Sociology</i>	215C Social Science
SCHUMACHER, FRANCIS XAVIER, B.S. <i>Professor of Forestry</i>	314 Social Science
SIMPSON, WILLIAM HAYS, Ph.D. <i>Associate Professor of Political Science</i>	313 Library
SMITH, GROVER C., JR., Ph.D. <i>Instructor in English</i>	407 Library
SMITH, HILRIE SHELTON, Ph.D., D.D., Litt.D. <i>Professor of American Religious Thought</i>	308 Divinity
SMITH, ROBERT SIDNEY, Ph.D. <i>Professor of Economics</i>	203D Social Science
SPENGLER, JOSEPH JOHN, Ph.D. <i>Professor of Economics</i>	322 Library
STINESPRING, WILLIAM FRANKLIN, Ph.D. <i>Professor of Old Testament</i>	105 Divinity
STOVALL, FLOYD, Ph.D. <i>Visiting Professor of English</i> <i>University of North Carolina</i>	204 Gray

STRANDTMANN, R. W., Ph.D. <i>Visiting Lecturer in Acarology</i> <i>Department of Biology</i> <i>Texas Technological College</i>	334 Biology
STROBEL, HOWARD AUSTIN, Ph.D. <i>Assistant Professor of Chemistry</i>	02 Chemistry
STUMPF, WIPPERT ARNOT, Ph.D. <i>Associate Professor of Education</i>	1D West Duke (E)
THOMAS, JOSEPH MILLER, Ph.D. <i>Professor of Mathematics</i>	227 Physics
THOMPSON, EDGAR TRISTRAM, Ph.D. <i>Professor of Sociology</i>	215A Social Science
TORRE, ELIAS, M.A. <i>Assistant Professor of Romance Languages</i>	201C Gray
TRUESDALE, JAMES NARDIN, Ph.D. <i>Associate Professor of Greek</i>	303 Gray
TURNER, ARLIN, Ph.D. <i>Visiting Professor of English</i> <i>Louisiana State University</i>	207 Gray
VERNBERG, F. JOHN, Ph.D. <i>Instructor in Zoology</i>	118 Biology
WALTER, JAMES ELIAS, I.A. <i>Instructor of Economics</i>	206 Social Science
WARD, CHARLES EUGENE, Ph.D. <i>Professor of English</i>	204 Gray
WATSON, RICHARD L., JR., Ph.D. <i>Associate Professor of History</i>	106 Gray
WEITZ, HENRY, Ed.D. <i>Associate Professor of Education</i>	304 Page
WELSH, PAUL, Ph.D. <i>Assistant Professor of Philosophy</i>	31 West Duke (E)
WETHINGTON, LEWIS ELBERT, Ph.D. <i>Assistant Professor of Religion</i>	05 Gray
WHARTON, GEORGE WILLARD, JR., Ph.D. <i>Associate Professor of Zoology</i>	334 Biology
WHITRIDGE, MRS. EUGENIA REMELIN, Ph.D. <i>Assistant Professor of Sociology</i>	215A Social Science
WILDER, PELHAM, JR., Ph.D. <i>Assistant Professor of Chemistry</i>	218 Chemistry
WILSON, FREDERICK ELIPHAZ, A.M. <i>Associate Professor of German</i>	106A Social Science
WITHERS, LOREN RALPH, M.S. <i>Assistant Professor of Music</i>	208B Asbury (E)
ZENER, KARL EDWARD, Ph.D. <i>Professor of Psychology</i>	205 Psychology Lab. (E)
ZUKOWSKI, HALINE, R.N., B.S., M.L. <i>Assistant Professor of Psychiatric Nursing</i>	127 Hanes House

## *To Former Students and to Prospective Students of the Summer Session*

The Summer Session at Duke University makes available to Duke students, to students from other universities and colleges, to teachers in elementary and secondary schools, and to other special students a notable program of instruction in many fields of knowledge, both academic and professional.

Course programs offered during the summer are designed to meet special and particular needs as well as the more conventional requirements leading to specific degrees.

**Undergraduates of Duke University** who desire to accelerate their programs may complete the work for a degree in three years by attending two and one-half Summer Sessions.

**Graduates of accredited high schools**, both men and women, who have been admitted to the freshman class of Duke University may begin their work in the Summer Session.

**Undergraduates from other colleges and universities** may enjoy the special advantages of summer instruction at Duke and transfer earned credits to their own institutions.

**Graduate students who have been admitted to the Graduate School** to study for the Master of Arts and Master of Education degrees will find courses arranged in sequence from summer to summer to meet their requirements.

**Teachers from elementary and secondary schools** who desire to earn credits toward the renewal of their certificates and who are interested in further teacher training in subject content and method may enroll in senior-graduate courses as special or unclassified students.

While the summer course program meets in many departments the needs of degree candidates, it goes beyond these limits in presenting also courses of wide general interest and, in addition, special non-credit lectures, concerts, plays, conferences, institutes, and workshops.

Duke University's ample and modern research facilities will be available during the summer to all properly qualified students. It is the hope of the University, of the summer faculty, and of the administrative officers that former students and new students will find increasing values in each summer spent at Duke.

THE DIRECTOR.

# Admission



THE general requirement for admission to the Summer Session is graduation from an accredited secondary school or its equivalent. Rejection of a student's application for admission to one of the University's Colleges or Schools does not preclude admission of that student to the Summer Session as a special or unclassified student.

Admission to specific courses offered in the Summer Session is governed by the student's academic status (freshman, sophomore, junior, senior, graduate, special or unclassified) and by the pre-requisites of the course in question.

## *Students in Residence at Duke University during the Spring Semester 1953*

A Duke University student, either graduate or undergraduate, who plans to attend the Summer Session should enroll with the dean of his college or school (see p. 22 for specific dates). He need *not* file with the Summer Session the application blank at the end of this *Bulletin*.

## *Students Not in Residence at Duke University during the Spring Semester 1953*

**UNDERGRADUATES.** New students seeking to enter Duke University as freshmen or as undergraduates with advanced standing, and undergraduates who wish to re-enter the University should write the Admissions Office. Men will address their application to the Director of Admissions, Trinity College and the College of Engineering; women will address their application to the Director of Admissions, The Woman's College.

Undergraduates, both men and women, enrolled in other colleges and universities who desire to earn in the Duke University Summer Session credits which are to be transferred to their own institutions should apply directly to the Director of the Summer Session, Duke University, on the application form at the end of this *Bulletin*. They should give accurately and clearly all information called for on the application form.

GRADUATES. Students with graduate standing and teachers in service with or without the Bachelor's degree who wish to earn credits toward the renewal or the advancement of their certificate and who do not wish to become candidates for a degree at Duke University should apply to the Director of the Summer Session on the application form at the end of this *Bulletin*.

Graduate students who are seeking admission to the Graduate School of Arts and Sciences and those who have been admitted to the Graduate School must apply to the Director of the Summer Session on the application form at the end of this *Bulletin*. Those who are seeking admission to the Graduate School *must also file* Graduate School application forms which may be secured by writing to the Dean of the Graduate School, Duke University, Durham, North Carolina.

### *Admission to Degree Candidacy*

Credits earned during the Summer Session may be applied toward the requirements of a degree.

UNDERGRADUATES. A student seeking to enroll as a candidate for the Bachelor's degree from one of the colleges of Duke University must meet the entrance requirements set forth in the *Bulletin of Undergraduate Instruction*. This *Bulletin* may be secured by writing the Director of Admissions, Trinity College and the College of Engineering, or the Director of Admissions, The Woman's College, Duke University.

GRADUATES. A student seeking to enroll as a candidate for one of the advanced degrees offered by the Graduate School of Arts and Sciences of Duke University must meet the requirements set forth on pages 39-45 of this *Bulletin*.

### *Admission of Veterans*

All veterans who plan to attend Duke University during the Summer Session of 1953 and who expect to receive benefits under the so-called G.I. Bill of Rights should write directly and promptly for instructions to the Duke University Veterans' Office. This should be done as soon as the veteran is reasonably certain he will attend the Summer Session. Letters should be addressed to: The Veterans' Office, Administration Building, Duke University, Durham, North Carolina.



# Financial Information, Living Accommodations, and Medical Care



## *Fees*

### The University Fee:

Covering registration, tuition, and medical care.....	\$12.00 per semester hour
Teachers in full-time service in Elementary and Secondary Schools.....	6.00 per semester hour
Registered Nurses enrolled in Nursing Education courses	6.00 per semester hour

### Laboratory Fees: (These where applicable are in addition to the University Fee.)

The School of Spanish Studies.....	\$15.00
Marine Laboratory .....	10.00
Applied Music—Piano. Instruction 12 half-hour lessons.....	36.00
Practice facilities, if used.....	6.00

### Fees Replacing University Fee:

Medical Mycology .....	\$50.00
Conference for Teachers of Science and Mathematics.....	8.00
Sewage Works Operators School.....	6.50

### Master's Degree Summer Session Fee:

Candidates for the Master's degree who do 15 hours or less of the program in Summer Sessions and who complete the thesis and/or take the final examination in the Summer Session pay a degree fee of....	\$12.50
When more than 15 hours is taken in Summer Sessions and final examination is taken through the Office of the Summer Session, the degree fee is .....	\$25.00

### Auditing Fees (See p. 24 for definition):

1. Students registered for a full course program may audit non-laboratory courses (with the permission of the Director) at no extra charge.
2. Students carrying less than a full course program may be granted permission to audit a course or courses on payment of half the University fee per semester hour audited.....\$ 6.00 per s.h.

### Late Registration Fee:

Students who fail to register prior to the first class day of a given course will pay an extra fee of.....	5.00
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### Fee for Course Changes:

Course changes other than those required by the University will be made only on payment of an extra fee of.....	1.00
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### Fee for Make-up Final Examination:..... 3.00

### Refund of Fees:

- a. When applications for withdrawal are received by the Director of the Summer Session before the close of registration on registration day, full fees will be refunded.
- b. When applications for withdrawal are received by the Director of the Summer Session during the first four class days of a given term 80 per cent of the fees will be refunded.
- c. When applications for withdrawal are received by the Director of the Summer Session after the fourth class day there will be no refund of fees.

*Student Aid*

**HALF-FEES TO TEACHERS AND REGISTERED NURSES:** Teachers in full-time service in elementary and in secondary schools and registered nurses enrolled in Nursing Education courses are given a rebate of one-half the University Fee. Teachers on leave of absence from their schools and teachers not currently employed are not eligible for this rebate.

**SCHOLARSHIPS FOR PUBLIC SCHOOL TEACHERS:** Duke University will award thirty special scholarships of \$100.00 each to high school and elementary teachers on a competitive basis (not by a written examination) for the Summer Session of 1953. This scholarship program is designed to encourage teachers to begin or to continue their graduate studies leading to the A.M. or M.Ed. degree.

Although successful applicants will not be required to become candidates for a degree, they must qualify for and receive admission to the Graduate School of Arts and Sciences.

All applications with supporting documents must be submitted by April 1, 1953. Selection and appointment of scholars will be completed by May 1, 1953.

Application blanks and complete information may be obtained from the Director of the Summer Session, Duke University, Durham, North Carolina.

**LOANS:** A number of loan funds have been established for the benefit of the students of Duke University. Several of these funds are available to students enrolled in the Summer Session. These funds are administered through a committee of officers of the University.

The sum which accrues annually for loans to students enrolled in the Summer Session is limited and not sufficient to cover all applications. The committee, in approving loans, selects those students who from the standpoint of character, scholastic attainment, personality, and degree of financial need are most deserving of consideration.

The following regulations govern the operation of the Summer Session loan fund program:

1. No loan shall be made to a student who violates any of the regulations of the University or whose academic record is not satisfactory to the faculty.

2. All loans must be arranged for not later than one week after the beginning of a term.

3. Every applicant for a loan must obtain the signatures of two substantial people on a note which must be presented to the treasurer of the University before any money will be advanced. Only one of these co-signers may be a member of a borrower's family.

4. No loan will be made to defray any expenses other than those incurred during the Summer Session for the University fee.

5. All loans must be repaid within six months following the close of the Summer Session in which the loan is made.

6. Interest at the rate of six per cent annually shall be charged for all loans.

7. Applicants for loans should make application to the Loan Committee, Office of the Secretary, Duke University. A formal application for loan assistance may be made only on forms furnished in the Secretary's Office during the first week of each term. The granting or withholding of a loan is a matter entirely within the discretion of the Loan Committee. A student is expected to use all other possible means of securing financial assistance before applying for aid from the loan fund.

### *Dormitory Accommodations*

The dormitory facilities of Duke University West Campus will be used for the 1953 Summer Session except in the case of the Marine Laboratory. The Men's Graduate Center will be used for graduate men. Few Quadrangle will be available for undergraduate men. Crowell Quadrangle will be used for women with designated houses reserved for graduate women and undergraduate women. Epworth Hall, on The Woman's College Campus, will be available to graduate women, preferably to those who desire to attend the twelve week term of the Summer Session. The University does not provide living accommodations for married couples.

Most rooms are furnished for two persons. Only a limited number of rooms are furnished as singles for one person. Furniture consists of single beds, 39" x 74", with mattresses, an individual clothes closet for each person, a chest of drawers for two persons, a study table, chairs, bookcase, waste basket, and window shades. Linens, blankets, towels, and pillows are not furnished by the University.

The School of Spanish Studies will be housed in Craven Quadrangle, which will offer segregated housing and other facilities desired for the School of Spanish Studies.

The Marine Laboratory is located on Pivers Island adjoining the United States Bureau of Fisheries across the Newport River from Beaufort, North Carolina. Three cottage-type dormitories are available with a separate building for dining hall and social activity. All rooms in the Marine Laboratory dormitories are equipped for two persons.

*Dormitory Rooms—Rates*

Single Room.....	12 weeks' term.....	\$60.00	
	6 weeks' term.....	30.00	
	5 weeks' term.....	25.00	
	4 weeks' term.....	20.00	
	3 weeks' term.....	15.00	
	2 weeks' term.....	10.00	
	1 week's term.....	5.00	
Double Room.....	12 weeks' term.....	\$84.00	\$42.00 each person
	6 weeks' term.....	42.00	21.00 each person
	5 weeks' term.....	35.00	17.50 each person
	4 weeks' term.....	28.00	14.00 each person
	3 weeks' term.....	21.00	10.50 each person
	2 weeks' term.....	14.00	7.00 each person
	1 week's term.....	7.00	3.50 each person
Double Room Furnished as a Single Room and Occupied by One Person.....	12 weeks' term.....	\$80.00	
	6 weeks' term.....	40.00	
	5 weeks' term.....	33.35	
	4 weeks' term.....	26.70	
	3 weeks' term.....	20.00	
	2 weeks' term.....	13.35	
	1 week's term.....	6.70	

Applications for room reservations accompanied by the full amount of the room rent for the term concerned should be made to Duke University Housing Bureau, Duke Station, Durham, North Carolina. Rooms will be reserved in the order in which applications are received. Notification of assignments to rooms will be made about May 15 for the first term; about July 10 for the second term.

Rooms are available to applicants twenty-four hours prior to the registration for a specific term of the Summer Session. A room is to be vacated by the occupant within twenty-four hours after the last final examination. Any period of occupancy other than for a specific term of the Summer Session must be arranged for at the Office of the Housing Bureau, 05 Administration Building.

Applicants should be sure to express their preference as to roommates, if they have a preference. If no preference of roommate is expressed, the Housing Bureau will assign a roommate; however, the Office does not assume responsibility in this matter.

**Estimated Cost of a Six-Week Term:**

University Fee, 6 s.h.....	\$ 72.00
Teachers (elementary and secondary) in full-time service, and Registered Nurses in nursing education courses, \$36.00	
Dormitory Rooms (2 occupants, \$21.00 per person) .....	21.00
Meals (Cafeteria selective: high average \$75.00, low average \$60.00) .....	67.50
Books and Class Materials \$7.00 to \$10.00.....	8.50
Miscellaneous (laundry, etc.) .....	12.00
Total (elementary and secondary teachers in full-time service and Registered Nurses in nursing education courses deduct \$36.00) .....	\$181.00

## *Medical Care*

With the exceptions noted below, full medical and surgical care is furnished to all regularly matriculated students of the University during the Summer Session at no additional cost to them beyond the University fee for each six-week term of residence, or any shorter period. This service is under the direction of the University Physician with the cooperation of the staffs of the infirmaries and the University Hospital. It includes hospitalization for a maximum period of six days, medical and surgical care, drugs, dressings, X-ray work, and ward, but not special nursing. Refraction of eyes, treatment of teeth and of all chronic and pre-existing conditions, such as diseased tonsils, hernias, elective surgery, chronic skin conditions, endocrine disturbances, etc., or accidents or illness occurring during vacations or while off the campus, are not included in this service. The cost of braces and necessary orthopaedic appliances and of blood, as well as special nursing, must be borne by the student. A charge for board will be made of the student while he is in the hospital. All necessary telephone and telegraph charges will be borne by the student.

No illness is treated in dormitory or other rooms occupied by students. Students needing treatment for minor medical or surgical conditions have the attention of the Director of Student Health at his two daily visits to the infirmaries, which have day and night nurses on duty. Students developing serious conditions are promptly transferred from the infirmaries to the University Hospital, where they come under the care of the staff of the hospital. For admission to the hospital a student *must* present the 1953 Summer Session Health and Recreation Card as evidence that he is matriculated in the Summer Session and entitled to hospitalization. No student is eligible for student health who is registered for less than 3 semester hours credit.



# Registration



## *Definition of Terms*

REGISTRATION. A student has completed registration for the Summer Session when:

1. His course program has been written and approved by the dean of the school or college in which he is enrolled or by the Director of the Summer Session in the case of the special or unclassified student.
2. Summer Session forms have been completed properly by the student in the Summer Session Office.
3. Summer Session university fees have been paid.

PRE-ENROLLMENT. The term pre-enrollment refers only to the writing of the course program and its approval by the proper deans or by the Director of the Summer Session in the case of the special or unclassified student. *Pre-enrollment alone does not constitute registration.*

## *General Registration*

CLASSES BEGINNING JUNE 11. All Summer Session students whose classes begin on June 11, Term I, who *do not* complete registration in the Summer Session Office, 104 Page Building, on or before June 6 *must* present themselves at general registration in the large gymnasium on June 10 to register. Students will register during 30-minute periods alphabetically according to *surname* as indicated in the following table.

<i>Time</i>	<i>Registrants (Surname)</i>
9:00- 9:30	N - P
9:30-10:00	Q - R
10:00-10:30	S
10:30-11:00	T - V
11:00-11:30	W - Z
11:30-12:00	A - B
12:00-12:30	C
2:00- 2:30	D - E
2:30- 3:00	F - G
3:00- 3:30	H - J
3:30- 4:00	K - L
4:00- 4:30	Mc - M

**CLASSES BEGINNING JUNE 16.** All Summer Session students whose classes begin on June 16, Term I, who *do not* complete registration in the Summer Session Office on or before June 13 must register in the Summer Session Office, 104 Page Building, on June 15.

**CLASSES BEGINNING JUNE 23.** All Summer Session students whose classes begin on June 23, Term I, who *do not* complete registration in the Summer Session Office on or before June 20 must register in the Summer Session Office, 104 Page Building, on June 22.

**CLASSES BEGINNING JUNE 30.** All Summer Session students whose classes begin on June 30, Term I, who *do not* complete registration in the Summer Session Office on or before June 27 must register in the Summer Session Office, 104 Page Building, on June 29.

**CLASSES BEGINNING JULY 22.** All Summer Session students who wish to register for courses offered during Term II or for research during Term II may register in the Summer Session Office on July 7 though July 16. All students who *do not* register for second term during this period *must* register in the Summer Session Office, 104 Page Building, on July 21.

**CLASSES BEGINNING ON OTHER DATES.** All Summer Session students registering for courses beginning on dates other than those specified above must complete registration in the Summer Session Office *before* the date on which their classes begin. *Registration on the day on which classes are scheduled to begin will be considered late registration.*

### *Late Registration*

Any student who fails to register on or before the dates specified in the preceding paragraphs will be charged a fee of \$5.00 for late registration. No student will be permitted to register for a 3 semester hour course after the fourth class day (June 15, Term I; July 25, Term II); a 4 semester hour course after the third class day (June 25, Term I; July 24, Term II); a 5 semester hour course after the third class day (June 18, Term I; July 24, Term II). Changes in courses other than those required by the University will require a payment of \$1.00 for each change made. All changes must be approved by the dean of the school or college in which the student is enrolled or, in the case of the special or unclassified student, by the Director of the Summer Session. These registration rules are enforced rigidly.

Since Summer Session courses present a program of study in more concentrated and rapid form than in the regular semesters, students are advised to register on time and to be present at all class sessions.

## *Advance Registration*

STUDENTS IN RESIDENCE AT DUKE UNIVERSITY DURING THE SPRING SEMESTER 1953.

WRITING COURSE PROGRAMS IN THE SCHOOLS AND COLLEGES. Students in residence at Duke University during the Spring Semester 1953, both graduate and undergraduate, who plan to enroll for courses offered in the 1953 Summer Session or to carry on research during the period of the Summer Session will write course programs and have them approved in their respective schools or colleges on the dates specified below:

Trinity College

April 27-May 2—freshmen and rising sophomores

May 4-May 5—rising seniors

May 6-May 7—rising juniors

College of Engineering

April 27—rising sophomores

May 4—rising seniors

May 6—rising juniors

Woman's College

May 4-May 5—rising seniors

May 6-May 7—rising juniors

May 11-May 12—rising sophomores

The Divinity School

May 6-May 7—all students planning to attend the Summer Session

The Graduate School of Arts and Sciences

May 4-May 5—all students planning to attend the Summer Session

ADVANCE REGISTRATION IN THE SUMMER SESSION OFFICE. Students in residence whose course programs have been written and approved by their respective colleges on the dates indicated above may complete their registration in the Summer Session Office, 104 Page Building, on the following dates:

Graduate students	May 4 through June 6
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Undergraduate students	May 18 through June 6
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Registration in the Summer Session Office includes:

1. Completion of various Summer Session forms.
2. Payment of university fees.

A student who registers with the Summer Session Office during this period *will not* be required to be present at general registration on June 10. He will begin his class work on the date his classes are scheduled to begin: June 11, June 16, June 23, or June 30.

#### STUDENTS NOT IN RESIDENCE AT DUKE UNIVERSITY DURING THE SPRING SEMESTER 1953.

**ADVANCE REGISTRATION BY MAIL.** Students not in residence at Duke University during the Spring Semester 1953—new undergraduate students seeking to enter as degree candidates, graduate students who are not candidates for an advanced degree at Duke University, graduate and undergraduate students of other colleges and universities desiring to earn credits for transfer, public school teachers and college teachers (not advanced degree candidates)—may register by mail. Advance registration by mail includes:

1. Completion in full of the application form at the end of this *Bulletin*.
2. Admission to the Summer Session by the Director of the Summer Session and, in the case of students seeking to enter Duke University as degree candidates, admission by the dean to the school or college of Duke University concerned.
3. Completion in full and return of forms required by the Summer Session Office by June 6.
4. Payment of university fees by June 6.

A student may *pre-enroll by mail* without paying the University fees, but he *cannot register in advance* without doing so.

Students who complete registration by mail on or before June 6 need not be present at the general registration on June 10.

**DEGREE CANDIDATE GRADUATE STUDENTS NOT IN RESIDENCE DURING THE SPRING SEMESTER 1953.** All graduate students not in residence during the Spring Semester 1953 who are candidates for an advanced degree in the Graduate School of Arts and Sciences of Duke University *must* present themselves for registration at the gymnasium on June 10. They cannot complete registration by mail because:

1. Their program of study for the summer must be approved by their Director of Graduate Study.
2. Their course programs must be written and approved by the Graduate School of Arts and Sciences.

*These students may pre-enroll by mail with the Summer Session Office and may pay their fees in advance, but they cannot complete their registration.*

# Academic Regulations



## *Kinds of Course Enrollment*

Summer Session courses may be taken for "credit" or for "non-credit" or may be "audited." A student's program may be exclusively in one of these categories, or may combine any two of them or all three. Students taking a full or partial program for "credit" may enroll as auditors or as non-credit students in any number of additional courses.

**CREDIT.** The Summer Session term "credit" does not mean degree credit at Duke University unless the student has been admitted as a degree candidate by one of the colleges or schools of the University. A student taking a course for credit is expected to do all the work required and to take the final examination, and he will receive a grade. G.I. Bill benefits are available only to those veterans who enroll for credit.

**NON-CREDIT.** "Non-credit" enrollment is available to the student who wishes the privilege of participating in class discussions, exercises, and laboratory assignments but does not wish to take the examinations either mid-term or final. A "non-credit" student may do as much of the work of the course as he desires, but he may not take the final examination and he will not receive a grade. Full fees of \$12 per semester hour are required in "non-credit" enrollment.

**AUDIT.** An auditor is entitled to listen to lectures and class discussions, but he may not participate in discussions or take examinations. Students may not enroll as auditors in laboratory courses. A student carrying a full program for credit may be given permission to audit as many courses as he desires without additional fees. Students carrying less than a full program for credit may secure permission to audit but are required to pay the auditing fee of \$6 per semester hour.

## *Eligibility for Course Enrollment*

Courses numbered 1-49 are primarily for freshmen, or freshmen and sophomores. Courses numbered 50-99 are ordinarily for sophomores, or sophomores and juniors. Courses numbered 100-199 are designed for juniors and seniors. Courses numbered 200-299 are planned for



seniors and graduates. Courses numbered from 300 up admit graduate students only. Courses numbered from 200 up are limited in enrollment to 25 students.

### *Length of Courses and Credit Allowed*

The Summer Session courses are of the same quality and credit value as courses in the regular semester. Credit earned in the Summer Session is in terms of semester hours. The majority of Summer Session courses carry 3 semester hours credit and require six weeks in residence. A limited number of basic courses in the sciences run for four weeks (Chemistry, Geology, Zoology) or five weeks (Physics). Introductory foreign language courses are given intensively on a three-week basis, as are a limited number of courses in Nursing Education and Art.

### *The Normal Course Program*

The normal and maximum program for a six-week term is 6 semester hours. The 4 and 5 semester hour courses in the sciences run for four and five weeks respectively and one such course constitutes a full course program.

### *Grading*

Only a student taking a course for credit will receive a grade. The grade given represents the quality of the work done in the course.

#### PASSED.

##### *Undergraduate Grades*

A — excellent

B — good

C — average

D — poor but passing

##### *Graduate Grades*

E — exceptional

G — good

S — satisfactory

FAILED. A grade of F indicates that the student has failed the course, and in order to receive credit for the course he must repeat the work in class.

INCOMPLETE. A grade of I may be reported by the instructor if for any reason he is unable to report the final grade at the regular time. Incomplete courses must be completed before the close of the succeeding semester; otherwise the I is recorded as F, and the course must be repeated in class if the student is to receive credit for it.

ABSENT FROM FINAL EXAMINATION. The grade X indicates that the student was absent from the regularly scheduled examination. A student absent from examination, if the absence has been

excused by the dean of the college or school in which he is enrolled or, in the case of the special or unclassified student, by the Director of the Summer Session, may receive an examination upon the payment of \$3 to the Treasurer of the University. The Instructor concerned arranges for the examination in cases where absences are excused. A student with an X grade who has not obtained a passing grade before the end of the semester following that in which the X was incurred is regarded as having failed in the course concerned and must repeat the work in class in order to receive credit. If a student's absence from an examination is not excused by the dean of the college or school in which he is enrolled or, in the case of the special or unclassified student, by the Director of the Summer Session, his grade for the course concerned is recorded as F.

### *Dropping of Courses*

If a student drops a course without permission from the dean of the school or college in which he is enrolled or, in the case of the special or unclassified student, the Director of the Summer Session, the grade for that course is recorded as F. If he drops a course with permission, the grade for that course is F unless, in the judgment of the dean or director, circumstances do not justify this penalty.

### *Withdrawal from the Summer Session*

If a student wishes to withdraw from the Summer Session, he must notify both the dean of the school or college in which he is registered and the Director of the Summer Session.

### *Absences*

Full credit will not be allowed any student who incurs more than four absences in a course. Days missed through late registration are counted as absences, and three tardies in a given course are counted as one absence.

### *Examinations*

Final examinations in courses are held on the two last days of each term. Final examinations for short courses which occupy the student's complete program will be held on the last day of the course. The examination dates for 1953 are:

First term: July 17-18.

Second term: August 27-28.

Courses in science which begin after the opening date for the first term have been scheduled so that their final examination will come on July 18. The science courses which begin July 21 and run for four weeks will have their final examination on August 15. Final examination for Physics S52 will be on August 21. The University has no provision for giving examinations *in absentia*. Students absent from examinations for valid reasons are permitted a liberal extension of time to return to the University for completion of credit.

### *Credits for Transfer*

A student desiring either graduate or undergraduate credits transferred from Duke University to his university or college as degree credit must request from the Director of the Summer Session, Duke University, a "Course Approval Form" to be completed by the student's Dean or Registrar and returned to the Director of the Summer Session, Duke University.

### *Professional Credits Toward Teachers' Certificates*

Professional credits toward teachers' certificates are granted by the various state boards of education, each in accordance with its own carefully planned rules. Teachers in service, before enrolling for certification credit, should consult the rules laid down by their State Board of Education. If necessary, they should send to their State Board of Education a list of the courses in which they plan to enroll and inquire whether these will be acceptable for certification credit.

# University Services, Publications, and Student Activities



## *Appointments Office*

The Appointments Office is maintained in Room 103, Page Building, the year around. The services of this Office are available without charge to students and teachers registered for a degree in Duke University and to school officials who may be seeking the services of new teachers. Students interested in securing employment through the Appointments Office should register with this Office.

## *The Bureau of Testing and Guidance*

The University maintains a Bureau of Testing and Guidance which provides a centralized program of educational, vocational, and personal counseling for students. In addition, the Bureau administers special group testing programs for University schools and departments and serves as the local testing center for a wide variety of national testing programs. The Bureau also carries on programs of research in the field of measurement and counseling. Although the counseling, testing, and research services of the Bureau are designed primarily to meet the needs of the students, the faculty, and the staff of Duke University, these services are made available to individuals and organizations outside the University as its facilities permit. Requests for further information should be addressed to the Director, Bureau of Testing and Guidance, Duke Station, Durham, North Carolina.

## *Post-Doctoral Research*

Scholars engaged in post-doctoral research find it advantageous and sometimes essential to use in summer the resources of the Duke University libraries. The University welcomes these visitors and makes available to them the living accommodations of the dormitories and the dining halls during the Summer Session, June 10 to August 28. Application for these post-doctoral research privileges must be made in advance by letter to the Director of the Summer Session, giving the applicant's present position, the specific field of his research interest,

and the dates during which he desires to be in residence. Approved applicants will be accepted subject to the availability of library and of dormitory space.

### *The Sundial*

During the Summer Session the University will publish each Saturday *The Sundial*, an official calendar and newsletter announcing events—academic, social and recreational—of the following week. This calendar also includes official notices concerning academic requirements. Students are expected therefore to read *The Sundial* regularly.

### *Recreation and Social Activities*

The Summer Session will provide a varied program of entertainment and recreation. These plans include movies, presented twice weekly by Quadrangle Pictures; the traditional Sunday evening sings; weekly summer dances and open house social evenings with games for those who do not care to dance; television in Union Lobby. Tours to areas of interest can be arranged for week-ends. Both the mountains and the seashore are easily accessible. Adequate facilities are available for those interested in swimming, tennis, and other sports. State clubs organized for the summer play an active part in all social activities.



# Resources of the University



## *The University Libraries*

THE University Libraries, with more than 1,085,000 volumes and 1,500,000 manuscripts, provide exceptional resources and facilities for study and research by undergraduate and graduate students, and visiting scholars. Between 40,000 and 50,000 volumes are added annually, while seventy foreign and domestic newspapers and 4000 periodicals are received currently. There is also a large collection of microfilms of rare books, newspapers, and periodicals.

A Chemistry library (16,000 volumes), Physics-Mathematics library (15,500), and Biology-Forestry library (48,000), are housed for convenience of use in the building of these departments. The libraries of the schools of Divinity (58,000), Law (98,000), Medicine (53,000), and of the College of Engineering (18,500) are also shelved in the buildings of these schools, all on the West Campus.

The General Library, centrally located on the West Campus, has 685,000 volumes in all other fields, and is the principal working and research collection for students in the humanities and social sciences. The collection has been developed with care to support the work of the undergraduate curriculum and the more specialized needs of graduate and post-graduate research. Basic collections of source materials are supported by the important publications of criticism and discussion. There are large collections of general periodicals, of the publications of European Academies, and of public documents of state, federal and foreign governments, as well as of international organizations. The newspaper collection (about 13,000 volumes and 3,200 rolls of microfilm) is particularly strong in papers from the states of the Atlantic seaboard, both North and South, with extensive holdings of Ante-Bellum and Civil War papers of North Carolina, South Carolina, and Virginia.

The manuscript collection, relating chiefly to the South Atlantic region and particularly strong in the Confederate period, is most extensive in the field of history, but contains important source material on all phases of social and economic life as well as of politics. There are also groups of manuscripts in American and British literature, with a notable Walt Whitman collection, and a number of important mediaeval manuscripts, chiefly lectionaries and copies of the

New Testament. Among many special collections of note are the Guido Mazzoni library of Italian and comparative literature, the Lanson Collection of French literature, Goethe and Dante collections, collections on Brazil, Peru, Ecuador, and the Philippines, the Holl Church history library, eighteenth-century English poetry and prose, a Socialist collection, the Arents tobacco collection, the Thomas collection of books on Chinese history and culture, the George Washington Flowers Collection of manuscripts, books, newspapers, and pamphlets dealing with all phases of Southern history, and the Trent Collection of Walt Whitman books and manuscripts.

The General Library building, which was modernized and enlarged in 1949, contains many special features which contribute to the preservation of materials and facilitate their use by students and research workers. The book stacks, manuscripts, and rare book storage and reading rooms are air-conditioned. Two hundred and fifty carrels, some completely enclosed, are available in the stacks as places of study. Graduate and advanced students are permitted free access to the stacks. On the ground floor is a newspaper reading room with a battery of microfilm reading machines, and a microphotography laboratory with facilities for reproducing printed and other material. On the same floor are the manuscripts reading room and storage area. The first floor has a periodical reading room, a graduate reading room, and an undergraduate reading room, the latter opening into an attractively furnished small library for recreational reading. In the North wing is the rare book reading room, with adjoining special collection rooms and storage stacks. The second floor houses the general reference and reading room, the circulation department and Main Loan Desk, and the Public Card Catalog, a union catalog of books in all the University libraries. There is also a catalog of the library of the University of North Carolina at Chapel Hill, whose books are available through inter-library loan.

On the East Campus, the Woman's College Library, in its attractive Georgian building, contains 93,000 volumes in an open stack collection, chiefly those most constantly needed in the undergraduate work of women students. A reference and general reading room, the Thomas Memorial Room, and the Booklovers' Room, with open shelves of books for general reading, provide comfortable and attractive space for reading and study.

All libraries of the University are open for use throughout the summer. A "Student's Guide to the General Library," and a brochure on "The Library of Duke University" which describes the building and collections in greater detail, are available on request addressed to the Librarian of the University.

## *The Science Laboratories*

**BOTANY:** Research facilities in botany are fully adequate in fields of the more fundamental aspects of plant science. Supervision and consultation for investigators are provided by a trained and experienced staff, specialists in the various fields.

While many of the facilities for research are concentrated at Duke University, ideal locations for certain fields are provided at the Duke University Marine Laboratory at Beaufort, North Carolina, and at Highlands Biological Laboratory at Highlands, North Carolina.

At Duke University, in addition to well equipped laboratories in the various fields of botany, special facilities such as greenhouses and refrigerated and air-conditioned rooms are available.

The herbarium, containing 150,000 specimens, is particularly strong in material from North Carolina and other southeastern states and includes notable collections of mosses, ferns, and grasses. The Biology-Forestry Library contains outstanding collections of books and serials, including most of the important American and foreign periodicals in botany.

Unique assets for research are the Sarah P. Duke Garden on the West Campus and the Duke Forest, comprising some eight thousand acres of woodland adjacent to the Campus.

The Marine Laboratory is located exceptionally well for the study of ocean plant life as well as the unique Coastal Plain flora. The Highlands Biological Laboratory is located in the richest vegetation area of the Southern Appalachian Mountains, perhaps the most interesting region floristically in North America. Scholarships for research during the summer months are offered at both stations.

**CHEMISTRY:** Undergraduate and graduate work in Chemistry is conducted in a modern building with a floor area of some 57,000 square feet. The maximum capacity of any undergraduate laboratory is 24 persons, which assures individual instruction. Each laboratory desk is furnished with all essential services and stockrooms are conveniently located.

Graduate work in Chemistry is carried on in laboratories designed for research and advanced teaching. There are 25 double research rooms completely equipped. In addition, a number of specially designed rooms are available for research, such as a photographic room, constant temperature room, and rooms equipped for dielectric constant infrared, visible and ultraviolet spectrophotometric measurements. A glass-blowing room and a well-equipped shop, operated by a competent mechanic, provide facilities for the construction of special apparatus and for the repair and maintenance of instruments.

The Chemistry Library with some 15,000 volumes is open to both

graduates and undergraduates. The main lecture room is equipped with slide projectors and a motion picture machine.

**PHYSICS:** The Physics Department offers exceptional opportunities to students working for advanced degrees, who value individual attention and personal contacts with the instructional staff. They will find at Duke University a department which is thoroughly modern. It is engaged in research in some of the most vital fields of Physics, and it offers a complete curriculum of advanced courses.

A new building, devoted exclusively to Physics, was completed in 1949. This building, covering about 62,500 square feet, constitutes one of the most modern and best equipped plants of its type. It contains in addition to facilities for research, for intermediate Physics and for elementary Physics, described below, a departmental library and ample shop facilities.

Five laboratories, dark rooms, two lecture rooms, several class rooms and three stock rooms are devoted to the elementary work. The lecture rooms are air conditioned and without windows which makes it possible to show all demonstrations requiring a dark room. The store rooms are equipped with sufficient equipment to perform all experiments required in elementary courses.

**ZOOLOGY:** The Zoological Laboratory is designed for both teaching and research in various fields and includes in its facilities animal rooms, a refrigerated room, dark rooms, air-conditioned room, and equipment for experimental work in radioisotopes. In addition, the Department of Zoology enjoys the availability of three unusual assets—the Duke Forest, the Duke University Marine Laboratory, and an outstanding library.

The Duke Forest, comprising some 8,000 acres of woodland adjacent to the campus, is very conveniently located for field work on forest, stream, and soil animals and for the collection of biological materials for laboratory studies. This affords fine opportunities for research in ecology, entomology, vertebrate and invertebrate zoology.

The Duke University Marine Laboratory at Beaufort, North Carolina, offers to seniors and graduate students formal courses in several branches of marine zoology during the summer months and is available for research throughout the year. The laboratory is fortunate in its location with an abundant marine fauna and proximity to varied coastal plain habitats.

The Medical School Library, which is available to graduate students in Zoology, together with the Biology Library, subscribe to more than 800 journals and have a collection of 90,000 volumes.

## *The Chapel*

The Duke University Chapel stands at the head of the main quadrangle of the West Campus, its two hundred and ten foot tower dominating the University buildings. The cloisters of open arches flanking either side of the tower and connecting it with other buildings of the quadrangle express the architectural union of the Chapel with the campus.

Patterned after English Gothic cathedrals, the Chapel attracts daily visitors and students from many lands. "The portal with its sculptured figures of churchmen and statesmen; the stained-glass windows, which portray characters and stories from the Bible; the limewood figures of the patriarchs, apostles and saints in the niches of the oak choir-stalls and reredos; the small Memorial Chapel with recumbent statues and tombs of Washington, Benjamin and James Duke; the great Aeolian Organ with a four-manual console and 7,791 pipes; the Carillon in the tower with fifty bells—are sources of interest and inspiration.

But the Chapel represents more than architectural symmetry and beauty. Standing at the heart of the University Campus, it is a perpetual reminder of the "Aims of the University."

The aims of Duke University are to assert a faith in the eternal union of knowledge and religion set forth in the teachings and character of Jesus Christ, the Son of God; to advance in all lines of truth; to defend scholarship against all false notions and ideals; to develop a Christian love of freedom and truth; to promote a sincere spirit of tolerance; to discourage all partisan and sectarian strife; and to render the largest permanent service to the individual, the state, the nation, and the church. Unto these ends shall the affairs of this University always be administered.

The Chapel is the home of Duke University Church, Interdenominational. The Church encourages the cultivation of the spiritual and moral life of students through participation in the service of worship which is held each Sunday morning at eleven o'clock. The pulpit is occupied by a regular University preacher, or a special visiting preacher. Choral music for these services is provided by a volunteer student choir.

Organ recitals are presented periodically by the University organist, and Carillon recitals twice a week, on Sunday afternoon and Thursday evening, by the University carillonneur.



# Special Conferences and Courses



**THE SCHOOL OF SPANISH STUDIES:** The Twelfth annual session of the School of Spanish Studies, June 10 to July 18, will present a program including undergraduate work and advanced oral Spanish, as well as graduate work in syntax and in Spanish and Spanish-American literature. In addition to the regular staff of Duke University, native visiting professors and native assistants will aid students in their everyday use of Spanish.

Faculty, assistants and students will live together in the *Residencia* (House D). The parlor and Craven Quadrangle will be the center of an Hispanic social program. All will have their meals together in a private dining-room, and a member of the staff or a native assistant will be in charge of conversation at each table. The language spoken at all times will be Spanish. Bona fide residents of Durham, or those who are registered in one course in another department may seek, with the permission of the Director of the School, adjustment in the rule concerning living in the *Residencia*.

Because of the special facilities provided in the School of Spanish Studies, a special fee of \$15.00 is charged. All other expenses are the same as in other departments of the Summer Session. Payment for board for the six-week session must be made at the time of registration. *In the Residencia personal radios are not permitted.*

The program of the School of Spanish Studies is intended for the following:

1. High School and College teachers who wish to refresh their active use of Spanish, or to pursue advanced courses.

2. Graduate students and undergraduates who are majoring or minoring in Spanish.

3. Prospective teachers of Spanish and specialists in other fields (business, government service, history, etc.) whose work may require a knowledge of Spanish.

4. Undergraduates who plan to fulfill their requirement in foreign language by courses in Spanish and who desire more than a reading knowledge of the language.

For details of the School of Spanish Studies, write the Director of the Summer Session for the special *Bulletin*. The course offerings of the School are listed in this *Bulletin*.

**LABORATORY CONFERENCE FOR TEACHERS OF SCIENCE AND MATHEMATICS:** During the Summer Session of 1953, Duke

University with the cooperation of the North Carolina Department of Public Instruction will combine the Science Teachers Laboratory Conference and The Institute for Teachers of Mathematics to form a new conference. The combination of these two successful programs will open to secondary school teachers a unique opportunity for further training in mathematics and science. The first Laboratory Conference for Teachers of Science and Mathematics will be held at Duke University, July 20-24, inclusive.

The basic purposes of the Laboratory Conference is to present practical and useful methods or experiments that may be used in the classroom. Training in the techniques involved in the setting up and execution of these methods or experiments will be emphasized and practiced by the participants in the program.

The program of the Conference will represent an integrated course planned and conducted by the Departments of Botany, Chemistry, Mathematics, Physics, and Zoology.

Morning and afternoon periods will be devoted to laboratory or lecture sessions. In the laboratory sessions, the members of the conference will set up and carry out with the assistance of the instructor selected exercises designed especially as aids in the teaching of science and mathematics. The evening sessions will be devoted to discussions of recent developments and to social intercourse of the members.

Membership in the Conference will be limited. While no tuition will be charged, there will be a registration fee of \$8.00. For full details, please address requests to the Director of the Summer Sessions, Duke University, Durham, North Carolina.

**THE SCHOOL FOR APPROVED SUPPLY PASTORS:** The fifth session of the Duke Divinity School's short term for Supply Pastors will meet June 15 to July 1, 1953.

The new schedule of courses as outlined in the 1952 Discipline of the Methodist Church will be followed.

Courses in each of the four years' work will be offered. No more than seven books may be taken by the student. All texts must be read, using the Handbook as a guide, before coming to the school.

Classes begin June 16 at 8:30 a.m. and close at 1:00 p.m. July 1. In addition, there will be a series of workshops and illustrated lectures in the fields of interest. Some of these will carry credit in the Supply School.

A number of scholarships are available for Supply Pastors who need aid in attending the school. Students desiring such aid must pre-register and receive a scholarship allotment before coming to the sessions of the school.

For a schedule of courses, registration blanks, scholarship informa-

tion, and other data, write W. A. Kale, Box 4353, Duke Station, Durham, North Carolina.

**SEWAGE WORKS OPERATORS SCHOOL:** Each year the North Carolina Sewage and Industrial Waste Association sponsors a Sewage Works Operators School as a part of a program of continuing education for superintendents, operators, and laboratory personnel in municipal and industrial waste treatment works. The 1953 School will be conducted at the College of Engineering, Duke University, August 24th through 28th.

A voluntary certification plan for such workers has recently been approved by the Association. The examination for the various certificates will be given for the first time this year as a part of the School. The instructional program of classroom and laboratory work will be conducted by a staff of experienced municipal and industrial plant operators, representatives of equipment manufacturers, members of the Faculties of Duke, North Carolina State College and the University of North Carolina. A detailed program for each instructional group will be available by July 1 and a copy will be sent on request to Dr. W. Brewster Snow, Civil Engineering Department, Duke University, Durham, North Carolina.

Registration fee for the school will be \$6.50. Dormitory housing will be available on the campus and meals may be secured in the University dining halls. For further information write the Director of the Summer Session or Dr. W. Brewster Snow, College of Engineering, Duke University, Durham, North Carolina.

**HIGHLANDS BIOLOGICAL STATION:** Duke University holds a subscribing instructional membership in the Highlands Biological Station at Highlands, North Carolina, on the southern edge of the Blue Ridge Mountains at an elevation of 4,118 feet. The situation and the region offer an excellent opportunity for field studies and limited laboratory work. A limited number of qualified students in Botany and Zoology may make arrangements to carry out research at this station.

**SUMMER INSTITUTE OF THE NORTH CAROLINA ENGLISH TEACHERS ASSOCIATION:** Principal meetings of the ninth annual English Institute of the North Carolina English Teachers Association will be held at Duke University, August 6th through August 8th. The annual luncheon and the afternoon meeting that follows will be held at Chapel Hill, North Carolina.

The work of the Institute will be conducted as round-table discussions, special lectures, reports of standing committees, and demonstrations. A lighter program will occupy one evening, while the academic and recreational facilities of Duke University will be at the disposal of persons attending the Institute. Rooms in the University

dormitories and meals in the University dining halls will be available at reasonable prices. Full details of the program will be announced at the spring meeting of the Association in Asheville, North Carolina. For further information write the Executive Secretary, Professor Earl H. Hartsell, Box 1050, Chapel Hill, North Carolina, or Professor F. E. Bowman, Department of English, Duke University, chairman of the local committee.

**MEDICAL MYCOLOGY:** A month's course in Medical Mycology, under the direction of Dr. Norman F. Conant, is to be offered at Duke University School of Medicine and Duke Hospital, July 1-31, 1953. The course will be offered every day in the week, except Sunday, and has been designed to insure a working knowledge of the human pathogenic fungi within the time allotted.

Emphasis will be placed on the practical aspects of the laboratory as an aid in helping establish a diagnosis of fungus infection. Insofar as possible and as patients become available, methods of collecting materials in the clinic for study and culture will be stressed. Work with patients, clinical material, cultures and laboratory animals will serve as a basis for this course. Also, an opportunity to study pathologic material, gross and microscopic, will be given those whose previous training would allow them to obtain the greatest benefit from a study of such material.

The enrollment for the course will be limited and the applications will be considered in the order in which they are received. An attempt will be made, however, to select students on the basis of their previous training and their stated need for this type of work.

A fee of \$50.00 will be charged for this course, upon the completion of which a suitable certificate will be awarded. Please direct inquiries to Dr. Norman F. Conant, Professor of Mycology, Duke University School of Medicine, Durham, North Carolina.

# Graduate Study in the Summer Session



A STUDENT who wishes to work toward the A.M., M.Ed., Ph.D., or Ed.D. degree must apply for admission to the Graduate School of Arts and Sciences. Only those students who have been officially admitted to the Graduate School will be required to register in the Graduate School. It is quite appropriate for a student who holds a bachelor's degree and who desires only professional credit to apply directly to the Director of the Summer Session for admission as a special or unclassified student. It should be understood, however, that the credit earned while the student is so listed is not credit toward an advanced degree in the Graduate School of Arts and Sciences. Students who look forward to taking an advanced degree by work in the Summer Sessions should make sure that all of their documents necessary for admission to the Graduate School (see below) have been forwarded to the Dean of that School.

To make formal application the student should address the Dean of the Graduate School, Duke University, requesting official application blanks. These should be filled out fully and returned at the earliest moment. The other documents needed to complete the application, namely, transcripts, letters of recommendation, and Graduate Record Examination scores for applicants in the departments of Economics, Psychology, and English, must be forwarded directly from the institutions or individuals to the Dean of the Graduate School. In no case will such documents be accepted directly from the student.

In order that application to the Graduate School for summer work be given due consideration, the student should submit all of his documents to the Dean of the Graduate School by June 1 before the first term, and by July 10 before the second term of the Summer Session. It would be difficult to give applications received after these dates the same attention given those received earlier. After the application is accepted and approved, the student will receive a letter of admission to the Graduate School.

## *Admission to the Graduate School*

Admission may be granted to a student who has received an A.B. or B.S. degree from an accredited institution after a four-year



course of study. The undergraduate record should be well-rounded and of such quality as to give positive evidence of capacity for success in graduate study. Before admission can be granted, the student must submit for appraisal the following documents: (a) an official transcript of all his college or graduate work, to be forwarded directly from the registrar of his college to the Dean of the Graduate School of Duke University; (b) three letters of recommendation from persons best qualified to appraise the student. In the departments of Economics, Psychology, and English, scores on the Graduate Record Examination are required before full admission can be granted. If possible, the student should take all three phases of this examination in advance of his intended registration. Arrangements can usually be made through officials at the student's college, or by correspondence with the Educational Testing Service, 20 Nassau Street, Princeton, New Jersey. Should a student be unable to take the examination before the final admission date, he may—if his other documents are acceptable—be granted "provisional" admission until he takes the examination, which he must arrange to take at the first time it is offered, after his "provisional" admission.

### *Registration of Graduate Students*

Students who have received a letter of admission to the Graduate School from the Director of Admissions of the Graduate School should present themselves for registration at the official registration period, June 10 for the first term, and July 21 for the second term. The student should remember that his registration with the Summer Session is not equivalent to registration in the Graduate School, and he should be sure to present himself for official registration in the Graduate School, so that his course work can be credited to his program leading to a degree. Students who have not been granted admission to the Graduate School, of course, do not register in the Graduate School.

### *Course Work Leading to Degree*

Graduate students who wish to work toward advanced degrees in the Summer Session, particularly in Chemistry, Economics, Education, English, History, Mathematics, Religion, Sociology, Spanish, and Zoology, will find a selection of courses offered by members of the Duke faculty and by visiting professors. Other departments ordinarily offering sequences of work leading to the Master of Arts degree in a series of summer terms are Botany, Political Science, and Psychology.

## *The Ph.D. and Ed.D. Degrees*

**STUDY FOR THE PH.D. DEGREE:** Students who are interested in working toward a Ph.D. degree should consult the detailed requirements as outlined in the *Bulletin* of the Duke University Graduate School of Arts and Sciences. Of the three years required as minimum residence, not more than one year can be earned in Summer Sessions. Full-time enrollment for one six-week term is counted as one-fifth of an academic year.

**STUDY FOR THE ED.D. DEGREE:** Students who are interested in working toward an Ed.D. degree should consult the detailed statement in the *Bulletin* of the Graduate School of Arts and Sciences. In general, the same requirements for residence are maintained for the Ed.D. degree as for the Ph.D. For specific information regarding programs for the Ed.D. degree, please write to the Director of Graduate Studies, Department of Education.

## *Requirements for the Master of Arts Degree*

**LANGUAGE REQUIREMENTS:** The candidate for the A.M. degree must have a reading knowledge of at least one foreign language. (The several departments reserve the right to specify which foreign languages are acceptable.) Evidence of such knowledge may be furnished in either of two ways: (1) by successfully passing an examination, officially conducted by the appropriate foreign language department at Duke University, or (2) by a transcript showing the completion of the third college year of one language, or the second college year of each of two acceptable foreign languages.

If the student must take the examination to satisfy this requirement, he may request—should he feel well qualified—the language examination required of candidates for the Ph.D. degree. By passing this examination, he may satisfy the requirements for both degrees at one time.

**MAJOR SUBJECT:** As a prerequisite to graduate study in his major subject, the student must have completed a *minimum* of 12 semester hours of approved college courses in that subject, and 12 additional semester hours in that subject or in related work. Since some departments require more than 12 semester hours, the student should read carefully the special requirements listed by his major department, which are included as headnotes to the course offerings in the *Bulletin* of the Graduate School.

In his graduate work, the student, in order to complete the course requirements for the A.M. degree, must present acceptable marks for 24 semester hours of graduate courses. In addition to these he must

present a thesis, which carries a credit of 6 semester hours. Thus, his earned credit for the degree totals 30 semester hours.

**MINOR SUBJECT:** Beyond the work for his major, the student must take a minimum of 6 semester hours in a minor department, the department of the minor to be approved by his major department. The remaining 6 semester hours of the necessary 24 may be taken in either of these departments, or in another approved by the major department and by the Graduate School Council.

**TRANSFER OF CREDITS:** Under certain circumstances a maximum credit of 6 semester hours may be allowed for graduate courses completed elsewhere. The acceptance of credit up to this amount, however, will not reduce the minimum period of full-time registered residence at Duke University. In no case will credit be allowed for extension or correspondence courses.

With the approval both of the student's major department and the Dean of the Graduate School, a student who is granted such transfer credit may be permitted to register for as much as 12 semester hours of thesis research instead of the usual 6 semester hours. Or he may be permitted to fill out his schedule with as much as 6 semester hours of further undergraduate training or 6 semester hours of required language courses on the undergraduate level.

**CANDIDACY FOR THE MASTER OF ARTS DEGREE:** After a student who has been officially admitted to the Graduate School has successfully completed 12 semester hours of graduate course work, he may apply for candidacy for the A.M. degree. Two conditions must have been met: (1) he must have passed all of his course work with at least 3 semester hours of "G" (good) grade or better; and (2) he must present to the Dean of the Graduate School an endorsement of his candidacy by the Director of Graduate Studies in his major department.

**TIME LIMITS FOR COMPLETION OF THE MASTER OF ARTS DEGREE:** The candidate for the A.M. degree must complete all of his course requirements and the thesis within a period of six calendar years from the date of his initial registration. Credits earned over a longer period of time cannot be credited toward a degree.

The student who expects to complete all requirements for the A.M. degree in the Summer Session must file with the Dean of the Graduate School, during the first week of the term when he expects to complete the work, a statement of his intention.

**THE THESIS FOR THE MASTER OF ARTS DEGREE:** The thesis for the A.M. degree should demonstrate the student's ability to collect, arrange, interpret, or report pertinent material on his special research problem. Although a publishable document is not required,

the thesis must be written in a literate style, and should exhibit the student's competence in scholarly methods and procedures.

**REGULATIONS AND PROCEDURES:** On or before July 1 of the summer in which it is expected the degree will be conferred, the student must file with the Dean of the Graduate School, on the official blank provided for that purpose, the final title of the thesis.

Four bound, typewritten copies of the thesis must be submitted, in approved form, to the Dean of the Graduate School at least one week before the date of the thesis examination. The copies will then be distributed to the several members of the examining committee.

**THE EXAMINING COMMITTEE AND THE EXAMINATION:** After consultation with the professor who has directed the thesis, the Dean of the Graduate School appoints an examining committee composed of the director of the thesis and two other members of the Graduate Faculty. The candidate appears before this committee for examination, which usually is restricted to the thesis and to the major field, and lasts for about one and one-half hours.

If the candidate successfully stands his examination, the examining committee certifies to his passing by signing the title page of the thesis. The candidate then returns the original and one carbon copy of the thesis to the Dean of the Graduate School, who deposits them in the University Library.

### *Requirements for the Master of Education Degree*

**PREREQUISITES:** The degree of Master of Education is granted ordinarily only to teachers or to others engaged in educational work.

Before a student is admitted to graduate study for this degree, he should have completed, on the undergraduate level, a minimum of 18 semester hours of approved work in Education, including courses in Educational Psychology, and courses in the History of Education, Educational Sociology, or School Administration.

Early in the program of his work, the student must pass successfully two examinations: (1) a test of general ability, and (2) a test designed to determine his ability to write acceptable English. The student, before the degree is conferred, must also present evidence testifying to at least two years of teaching experience, gained either before his admission to course work, or concurrently with it.

**REQUIREMENTS FOR THE DEGREE:** The M.Ed. degree may be earned either with or without the presentation of a thesis.

**WITHOUT THESIS:** Students who elect this plan must present a total of 30 semester hours. Twelve hours of this required work must include the *four* basic courses: Education 204, 210, 217, and



235. If a student, by examination, can demonstrate his competency in the subject matter of two of these courses, he may be granted exemption from the required work in these courses. In no case may he claim exemption for more than two.

Other requirements are: a departmental major (i.e., in Nursing Education, Elementary Education, Public School Administration, Public School Supervision, or Secondary Education) of at least 12 semester hours, and a minor of at least 6 semester hours in a department other than Education. Toward the end of his residence the student must pass a comprehensive examination on his departmental major and on the content of the four basic courses. Permission to take such examinations must be obtained from the Director of Graduate Studies of the Department of Education, and a notice of intention must be filed with him at least three weeks before the announced dates of the examinations.

WITH THESIS: Students who elect this plan are permitted to substitute a thesis for 6 semester hours of the required course work. The first 12 semester hours must be passed with a grade of "G" (good) on at least 6 semester hours, and with no grade below an "S." The student must also present a thesis subject approved by the Professor of Education who intends to direct it, and by two other members of the staff in Education, including the Director of Graduate Studies. Two of the three members of the approving committee must be permanent members of the Duke University Graduate Faculty. The title of the thesis must be filed with the Dean of the Graduate School at the same time as the titles for the A.M. theses (see p. 43).

In addition to the thesis, the student must present 24 semester hours of course credit. Of these, 6 semester hours must be earned in *two* of the basic courses in the Department; Education 204, 210, 217, or 235. Of the remaining 18 semester hours, 6 semester hours must constitute a minor taken outside of the Department of Education; at least 12 semester hours must be taken in the student's departmental major.

The regulations regarding submission of typed copies of the thesis and the thesis examination are the same as those for the A.M. degree (see p. 43).

**CANDIDACY FOR THE MASTER OF EDUCATION DEGREE:** After a student who has been officially admitted to the Graduate School has successfully completed 12 semester hours of graduate course work, he may apply for candidacy for the M.Ed. degree. Two conditions must have been met: (1) he must have passed all of his course work with at least 3 semester hours of "G" (good) grade or better; and (2) he must present to the Dean of the Graduate School an en-



dorsement of his candidacy by the Director of Graduate Studies in his major department.

**TIME LIMITS FOR COMPLETION OF THE MASTER OF EDUCATION DEGREE:** The candidate for the M.Ed. degree must complete all of his course requirements and the thesis within a period of six calendar years from the date of his initial registration. Credits earned over a longer period of time cannot be credited toward a degree.

The student who expects to complete all requirements for the M.Ed. degree in the Summer Session must file with the Dean of the Graduate School, during the first week of the term when he expects to complete the work, a statement of his intention.

## Divinity School Studies



**BACHELOR OF DIVINITY AND MASTER OF RELIGIOUS EDUCATION:** The degrees of Bachelor of Divinity and Master of Religious Education are administered by the faculty of the Divinity School. A limited number of courses carrying credits toward these degrees is listed in this *Bulletin* under the heading of Religion. Persons desiring credit toward either of these degrees must be regularly admitted to the Divinity School, and all courses listed for Divinity School credit must be registered and approved in the office of the Divinity School. This school publishes its own Summer Session Bulletin, a copy of which may be secured by addressing The Office of the Dean, The Divinity School, Duke Station, Durham, N. C.

## Undergraduate Study

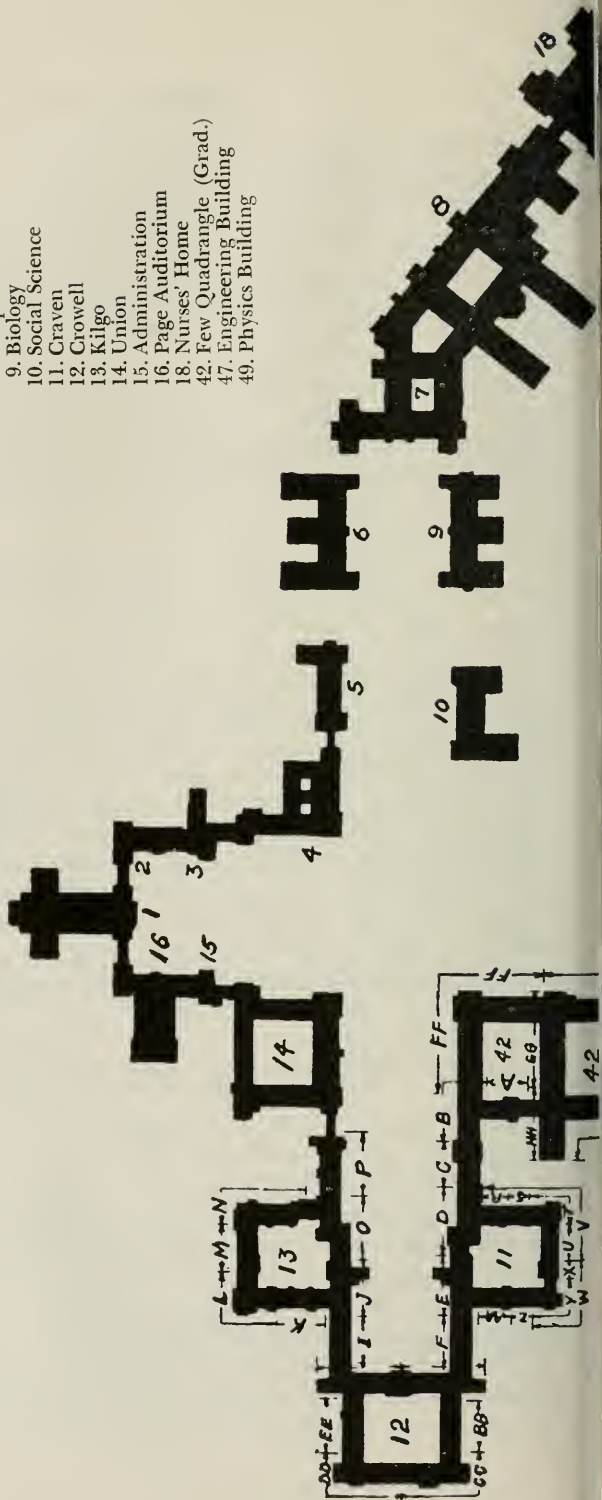


**UNDERGRADUATES** in Duke University who desire to accelerate their programs may complete the work for a degree in three years by attending two and one-half summer sessions.

Undergraduates from other colleges and universities may enroll for summer instruction at Duke and transfer their earned credits to their own institutions. By attending both terms of the Summer Session it is possible for a student to earn as many as twelve semester hours of credit. Instruction of interest to undergraduates will be offered in the summer of 1953 in most of the departments and colleges.

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1. Chapel
2. Gray
3. Divinity School
4. Library
5. Law School
6. Chemistry
7. Medical School
8. Hospital
9. Biology
10. Social Science
11. Graven
12. Growell
13. Kilgo
14. Union
15. Administration
16. Page Auditorium
18. Nurses' Home
42. Few Quadrangle (Grad.)
47. Engineering Building
49. Physics Building



# Courses of Instruction



## *Minimum Enrollment Required for Courses*

ALL courses are offered subject to minimum enrollments. The University reserves the right to withdraw undergraduate courses in which fewer than twelve students enroll, senior-graduate courses numbered 200-299 in which fewer than ten students enroll, and graduate courses and seminars numbered 300 or above in which fewer than six students enroll. In withdrawing a course, the University attempts to avoid undue hardships on students. Sometimes, therefore, courses are offered in spite of small enrollments. Courses not listed will be given when a demand develops and an instructor is available.

## *Department Officers and Regulations*

Departments offering Summer Session programs are listed alphabetically. Under each department is given the name of the chairman and the name of the director of graduate studies. Where departments have set up special regulations for admission to candidacy for the Master's degree, these are included.

## *Key to Room Assignments for Classes*

The description of each course indicates the building and room in which the course is scheduled and the hour at which it will be given. For example: Economics S51 is scheduled as 10.208. This means Building 10, Room 208. The key to building numbers is given in the chart.

### AESTHETICS, ART, AND MUSIC

PROFESSOR EARL MUELLER, CHAIRMAN OF THE EXECUTIVE COMMITTEE

100 ASBURY (EAST CAMPUS)

#### FIRST TERM

S47A, S97A, S147A, S197A. APPLIED MUSIC—PIANO.—For freshmen, sophomores, juniors, seniors. Two one-half hour lessons per week. By appointment with the instructor. A student who plans to take applied Piano should consult the instructor as early as possible before registering for the course. 208B Asbury (E).  
1 s.h. MR. WITHERS

**S51. HISTORY OF ART: ART AND CULTURE IN THE WESTERN WORLD.**—An historical survey of the development of architecture, sculpture, painting and minor arts as material manifestations of the culture of the Western world from ancient Egypt to modern times. Open to upperclassmen who have not had Art 1-2 or 61-62, and to freshmen in Trinity College and the College of Engineering. June 10-June 29. 4.07. 7:40-9:00 and 9:20-10:40. 3 s.h. MR. MARKMAN

**S52. HISTORY OF ART: ART AND CULTURE IN THE WESTERN WORLD.**—A continuation of Art S51, equivalent to the second semester. June 30-July 18. 4.07. 7:40-9:00 and 9:20-10:40. 3 s.h. MR. MARKMAN

**S151. PUBLIC SCHOOL MUSIC EDUCATION.**—For Elementary Education majors and others who wish to qualify for the North Carolina Teaching certificate. Materials and methods of teaching music in the first six grades. Study of child voice and song; rhythmic activities; discriminative listening; music-reading; use of elementary instruments such as the tonette, autoharp and rhythm band instruments; emphasis on creative approach and on integration of music with other subjects. 111 Asbury (E). 7:40-9:00. 3 s.h. MRS. SAVILLE

**S165. OPERA.**—Study of opera from Handel to Strauss; aesthetic and cultural implications of opera from the Baroque to the present. 111 Asbury (E). 9:20-10:40. 3 s.h. MRS. SAVILLE

## AIR SCIENCE

COLONEL ROBERT J. KNIGHT, JR., CHAIRMAN  
115 SOCIAL SCIENCE BUILDING (WEST CAMPUS)

Air Science courses will be given during both terms for students already enrolled pursuing accelerated programs in the University.

Entering freshmen will commence their Air Science courses in the Fall Semester.

**AS 51-52. APPLIED AIR POWER AND ELEMENTARY AIR FORCE ADMINISTRATION.**—This course covers the development and use of military aircraft, air navigation, and weather; teaches the use of records for an Air Force organization and the administration of an Air Force base. Prerequisite: AS 1-2 or equivalent.

### FIRST TERM

AS 51.1. June 10-July 18. 10.117. 9:20-10:40. 2 s.h. Monday through Thursday. STAFF

### SECOND TERM

AS 52.1. July 21-August 28. 10.117. 9:20-10:40. 2 s.h. Monday through Thursday. STAFF

## BOTANY

PROFESSOR HUGO L. BLOMQUIST, CHAIRMAN—203 BIOLOGY BUILDING (WEST CAMPUS);  
PROFESSOR PAUL J. KRAMER, DIRECTOR OF GRADUATE STUDIES—  
04 BIOLOGY BUILDING (WEST CAMPUS)

For admission to candidacy for the Master's degree in Botany, students must have completed a minimum of eighteen semester hours of biological science, including six semester hours of botany in courses numbered above 100. Students who have not yet had the minimum eighteen hours, however, may enter higher courses by permission of the instructor, if he is convinced that they can carry the work for undergraduate credit, and may count such work toward the eighteen hours necessary for candidacy.

### FIRST TERM

S225. SPECIAL PROBLEMS.—Hours to be arranged.

STAFF

S359. RESEARCH.—Hours to be arranged.

STAFF

## SECOND TERM

S225. SPECIAL PROBLEMS.—Hours to be arranged.

STAFF

S359. RESEARCH.—Hours to be arranged.

STAFF

## SECOND TERM (Marine Laboratory at Beaufort, North Carolina)

S212. COASTAL AQUATIC VEGETATION.—A study of coastal vegetation with emphasis on aquatic vascular plants and algae inhabiting coastal areas as well as freshwater habitats in the outer Coastal Plain. Prerequisites, one year of botany or equivalent. 6 s.h.  
MR. BLOMQUIST

S359. RESEARCH.—Hours to be arranged.

MR. BLOMQUIST

## CHEMISTRY

PROFESSOR MARCUS E. HOBBS, CHAIRMAN—022 CHEMISTRY BUILDING (WEST CAMPUS);  
PROFESSOR WARREN C. VOSBURGH, DIRECTOR OF GRADUATE STUDIES—  
211 CHEMISTRY BUILDING (WEST CAMPUS)

All first term courses in the Department of Chemistry will begin on June 23 and continue through July 18. All second term courses will begin on July 21 and continue through August 15. A course in chemistry constitutes a student's full program and occupies his entire time during each school day.

## FIRST TERM

S1. GENERAL INORGANIC CHEMISTRY.—Lectures, recitations, and laboratory work on the elementary principles of chemistry and on the occurrence, preparation, properties, and uses of the elements and their compounds. Recitation daily, 8:00-9:00, 6.112; laboratory daily, 9:00-12:00, 6.108; lecture daily, 12:00-1:00, 6.116. 4 s.h.  
MR. STROBEL

S61. FUNDAMENTALS OF ANALYTICAL CHEMISTRY.—A study of the relations of electrolytes in solution and of chemical equilibrium illustrated by laboratory experiments involving the techniques of gravimetric, volumetric, and colorimetric analysis. Prerequisites: Chemistry 1-2 and Mathematics 6 or equivalent. Lecture or recitation daily, 8:30-10:00, 6.122; laboratory daily, 11:00-12:30 and 2:00-5:00, 6.208. 4 s.h.  
MR. SAYLOR

S151. ORGANIC CHEMISTRY.—An introduction to the study of carbon compounds. Compounds of the aliphatic series form the basis of lectures, discussions and laboratory experiments. Prerequisite: Chemistry S61. Recitation daily, 8:00-9:00, 6.01; laboratory daily, 9:00-12:00, 6.301; lecture daily, 12:00-1:00, 6.01. 4 s.h.  
MR. BRADSHER

S275. THESIS RESEARCH.—Research in the fields of physical, analytical, inorganic, or organic chemistry. Open to those students whose research programs for the A.M. and Ph.D. degrees have been approved by the department and by one of the instructors in charge of the course. Schedule to be arranged. (Not more than one semester hour of credit per week for full-time schedule or one semester hour each two weeks for half-time schedule.) 2 to 8 s.h.  
STAFF

## SECOND TERM

S2. GENERAL INORGANIC CHEMISTRY.—A continuation of S1. Prerequisite: Chemistry S1. Recitation daily, 8:00-9:00, 6.112; laboratory daily, 9:00-12:00, 6.108; lecture daily, 12:00-1:00, 6.116. 4 s.h.  
MR. WILDER

S152. ORGANIC CHEMISTRY.—A study of compounds of the aromatic series and of carbohydrates and proteins. Prerequisite: Chemistry S151. Recitation daily, 8:00-9:00, 6.01; laboratory daily, 9:00-12:00, 6.301; lecture daily, 12:00-1:00, 6.01. 4 s.h.  
MISS BROWN



## ECONOMICS

PROFESSOR CALVIN B. HOOVER, CHAIRMAN; PROFESSOR FRANK T. DE VYVER, EXECUTIVE OFFICER OF THE DEPARTMENT—203H SOCIAL SCIENCE BUILDING (WEST CAMPUS); PROFESSOR JOSEPH J. SPENGLER, DIRECTOR OF GRADUATE STUDIES—322 LIBRARY BUILDING (WEST CAMPUS)

## FIRST TERM

S51. PRINCIPLES OF ECONOMICS.—A short course in the essential principles of economic science. (This course will not count as a part of the minimum economics requirements for graduation until the equivalent of S52 has been completed. Credit for Ec. S51 will not be given until Ec. 52 has been completed.) 10.208. 7:40-9:00. 3 s.h. MR. DEWEY

S57. PRINCIPLES OF ACCOUNTING.—Elementary principles of single proprietorship, partnership, and corporation accounting. June 10-June 29. 10.214. 7:40-12:20. 3 s.h. MR. BLACK

S58. PRINCIPLES OF ACCOUNTING.—A continuation of Economics S57. June 30-July 18. 10.214. 7:40-12:20. 3 s.h. MR. BLACK

S115. ECONOMIC GEOGRAPHY: TEACHERS' COURSE.—A study of the interrelation of human activities and environmental elements. The discussion embraces location, maps and their interpretation, the major climatic regions, seasonal influences, weather, lands and their uses, soils and minerals, bodies of water, plants, animals, and the works of man, as environmental factors. B113. 7:40-9:00. 3 s.h. MR. LEMERT

S118. ECONOMIC GEOGRAPHY OF THE SOUTH.—A study of the agricultural, commercial, and industrial development, with special emphasis upon the expansion of Piedmont industries. B113. 9:20-10:40. 3 s.h. MR. LEMERT

S138. BUSINESS STATISTICS.—A survey of the principal statistical methods and their application to economics and business administration. The course deals with collection of statistical data, construction of statistical tables and charts, and a brief study of the fundamental statistical concepts and techniques. Prerequisite: Mathematics 5 or the equivalent. 10.201. 11:00-12:20. 3 s.h. MR. SAVILLE

S153. MONEY, CREDIT AND BANKING.—This course begins with a study of the nature, characteristics, and functions of money, credit, and the commercial banking system. It covers also the history of commercial banking in the United States; the foundation, organization, and functions of the Federal Reserve System; the supervision and control of commercial banks; deposit insurance; and the value of money. 10.204. 9:20-10:40. 3 s.h. MR. SAVILLE

S155. LABOR PROBLEMS.—An examination of present-day labor problems followed by an intensive study of methods used by employers and workers in meeting those problems. 10.204. 7:40-9:00. 3 s.h. MR. CARTER

S171. ADVANCED ACCOUNTING.—Advanced accounting theory and practice applied to the managerial problems of valuation and operation in corporations, consolidations, mergers, and liquidations. Open to students who have completed Accounting 57-58. June 10-June 29. 10.212. 7:40-12:20. 3 s.h. MR. DICKENS

S172. ADVANCED ACCOUNTING.—A continuation of Economics S171. June 30-July 18. 10.212. 7:40-12:20. 3 s.h. MR. DICKENS

S189. BUSINESS AND GOVERNMENT.—An examination of the public policies which most directly affect the operation of competition in the business world. The course considers the leading philosophies of public control and economic development, the validity of their presuppositions, and their influence on legislation, court decisions, and administrative law. 10.208. 1:40-3:00. 3 s.h. MR. DEWEY

S219. ECONOMIC PROBLEMS OF UNDER-DEVELOPED AREAS.—Consideration and analysis of the economic and related problems of under-developed countries. Some attention will be given to national and international programs designed to accelerate the solution of these problems. 10.209. 1:40-3:00. 3 s.h. MR. SPENGLER

S257. DYNAMICS OF THE LABOR MOVEMENT.—A study of the forces which have shaped the growth of the labor movement. Special emphasis on the origin of modern trade unionism, relating its growth with Western philosophic developments, and with the changing economic and social structure of society in Europe and America. 4.324H. 11:00-12:20. 3 s.h. MR. CARTTER

S318X. THESIS SEMINAR.—Hours to be arranged.

MR. SPENGLER

## SECOND TERM

S52. PRINCIPLES OF ECONOMICS.—A continuation of Economics S51 (see First Term for description), emphasis on economic problems. 10.209. 7:40-9:00. 3 s.h. MR. MCKENZIE

S60. ACCOUNTING.—A course in accounting principles designed for economics majors and other non-business administration students who desire some understanding of basic accounting concepts. This course is required of economics majors who do not take Course 57-58. It must be taken in the sophomore or junior year. Students may not receive credit for both Course 60 and Course 57-58. 10.214. 11:00-12:20. 3 s.h. MR. MCKENZIE

S103. TRANSPORTATION.—Essential features, problems, and competitive positions of rail, highway, air, and inland-water transportation, with most emphasis on rail transportation. Special attention is given to the economic significance of transportation, and to cost factors, rates and their economic effects and regulations. 10.201. 7:40-9:00. 3 s.h. MR. LANDON

S105. INDUSTRIAL MANAGEMENT.—A study of the organization and management of industrial production, with emphasis upon the principles governing location and plant design, the planning and control of materials and methods, and general price policies. 10.208. 9:20-10:40. 3 s.h. MR. LANDON AND MR. WALTER

S143. CORPORATION FINANCE.—Principles and problems in the financial organization of corporations; the study of corporate securities, the management of capital, the distribution of earnings; industrial combinations; insolvency and reorganization. (Though not a prerequisite, Economics 57-58, Principles of Accounting, or Economics 60, General Accounting, are recommended to students electing this course). 10.210. 7:40-9:00. 3 s.h. MR. JOERG

S144. INVESTMENTS.—A study of the investment policies of individuals and institutions; the securities markets; sources of investment information and data; the analysis and interpretation of financial statements. Prerequisites: Economics 57-58 or 60, and 143. 10.210. 11:00-12:20. 3 s.h. MR. JOERG

S188. PERSONNEL MANAGEMENT.—A study of the fundamental principles and problems of labor management and of collective bargaining under modern industrial conditions and under existing labor legislation. Prerequisite: Economics 155. 10.110. 1:40-3:00. 3 s.h. MR. WALTER

S231. THE ECONOMIC HISTORY OF EUROPE.—The economic development of Europe from medieval times to the present, treating such topics as the guilds, mercantilism, money, banking, crises, the Industrial Revolution, and interrelations of government and business, and the economic consequences of war. 10.209. 9:20-10:40. 3 s.h. MR. SMITH

S232. THE ECONOMIC HISTORY OF UNITED STATES.—A study of the agricultural, industrial, commercial, and financial progress of the United States from colonial times to the present day. 10.209. 11:00-12:20. 3 s.h. MR. SMITH

S318X. THESIS SEMINAR.—Hours to be arranged.

MR. LANDON

## EDUCATION

PROFESSOR WILLIAM H. CARTWRIGHT, CHAIRMAN—1C WEST DUKE BUILDING (EAST CAMPUS);  
PROFESSOR EDWARD C. BOLMEIER, DIRECTOR OF GRADUATE STUDIES—  
1C WEST DUKE (EAST CAMPUS)

For admission to candidacy for the Master of Arts (A.M.) degree with major in Education, or for the Master of Education (M.Ed.) degree, students must, in addi-

tion to meeting the general requirements for admission to the Graduate School, meet the following specific requirements: Credit for (1) eighteen semester hours of acceptable prior work in Education and (2) twelve semester hours of acceptable prior work in a minor field. If Psychology, Sociology, Economics, or Political Science is chosen for the minor, six semester hours of work completed after entering the Junior year in college will be accepted.

The degree of Master of Arts is available in the divisions of Public School Administration, Public School Supervision, Secondary Education, Elementary Education and Educational Psychology. Every candidate for the Master of Arts degree in the Department should elect at least twelve semester hours in one of these divisions in which he plans to write his thesis and the remainder of his work, including the six semester hours in his minor, with the approval of the proper division adviser. The degree of Master of Education is available in the divisions of Public School Administration, Public School Supervision, Secondary Education, and Elementary Education. Dr. Bolmeier and Dr. Stumpf are advisers to students in School Administration and in Supervision; Dr. Carr and Dr. Rudisill are advisers in Elementary Education; Dr. Bolmeier, Dr. Cartwright and Professor Childs are advisers in Secondary Education; and Dr. Easley is adviser in Educational Psychology. Candidates for the Master of Arts and Master of Education degree should read with special care the regulations of the Graduate School as set forth on pages 39-45.

### FIRST TERM

**S103. ORGANIZATION AND MANAGEMENT OF THE SCHOOL.**—An introduction to the problems of school organization and administration which are of particular concern to the classroom teacher. Although federal and state control over education is briefly reviewed, the main consideration is the local school system. Considerable attention is given to the administration of teaching personnel, pupil personnel, and the program of studies. 2.102. 9:20-10:40. 3 s.h. **MR. CAMPBELL**

**S118. EDUCATIONAL PSYCHOLOGY: PSYCHOLOGICAL DEVELOPMENT.**—This course traces the psychological development of the individual from infancy to maturity. The principal topics considered are: the interdependence of heredity and environmental factors in development, the nature of the developmental process, the establishment of the early basic patterns of behavior, changes and conditions producing these changes throughout childhood and adolescence to maturity, and the origin and treatment of minor behavior disorders. To the degree practicable, students will observe children in typical and atypical situations as a means of securing concrete data on the problems treated in the course. Not open to students who have had Psychology 121 or 126. Prerequisite: three semester hours in psychology or educational psychology. 2.102. 7:40-9:00. 3 s.h. **MR. ADAMS**

**S201. TEACHING AND SUPERVISION OF ARITHMETIC.**—This course gives special attention to the number system, the fundamental operations (with whole numbers, fractions, and decimals), percentage and measurements. The course will consider the meaning theory, methods of teaching, problem solving, evaluation, practice and drill, and selection and gradation of arithmetical contents. The course is designed for teachers and supervisors in the elementary school. 2.306. 7:40-9:00. 3 s.h. **MR. PETTY**

**S203. PRINCIPLES OF SCHOOL ADMINISTRATION.**—An introductory course dealing with the organization and administration of a public school system. 10.110. 9:20-10:40. 3 s.h. **MR. BOLMEIER**

**S205. CURRICULUM PROBLEMS IN SECONDARY EDUCATION.**—A consideration of the aims and objectives of secondary school subjects, emphasizing practical problems of curriculum-making in the high school. 10.110. 11:00-12:20. 3 s.h. **MR. CARTWRIGHT**

**S211. THE PROBLEM CHILD** (also Psychology S211).—Study of problem behavior and adjustment in children with emphasis on the causes and treatment of conduct and neurotic disorders of the maladjusted child. Particular attention will be paid to mental hygiene principles in the handling of problem children in school and home. 2.105. 9:20-10:40. 3 s.h. **MR. FILER**

S217. THE PSYCHOLOGICAL PRINCIPLES OF EDUCATION.—An advanced study of teaching, learning, and the learner. Selected problems guiding the reading of students will be discussed in class. This is one of the courses required for the Master of Education degree without thesis. Open to graduate students only. 10.110. 7:40-9:00. 3 s.h. MR. WEITZ

S222. THE CURRICULUM AND MATERIALS OF THE ELEMENTARY GRADES.—A study of curriculum problems in the elementary schools. 10.107. 1:40-3:00. 3 s.h. MR. CARR

S224. TEACHING THE SOCIAL STUDIES IN ELEMENTARY SCHOOLS.—This course will treat objectives, curriculum trends, methods, and materials in elementary-school social studies. Topics to receive emphasis include unit-planning, use of the textbook, the reading program, using community resources, audio-visual materials, dealing with controversial issues, teaching time and place concepts, and evaluation. Opportunity will be provided for teachers to work on their own school problems in the social studies. 2.201G. 9:20-10:40. 3 s.h. MR. CARTWRIGHT

S226. TEACHING READING IN THE ELEMENTARY SCHOOL.—A study of the nature of the reading process and of principles, methods, and materials for the development of effective reading attitudes and skills as applied both to developmental and remedial programs. The course provides practice with elementary-school children suffering reading retardation, including testing, diagnosis, and daily remedial teaching during the six-week period. A-2A. 11:00-12:20. 3 s.h. MISS RUDISILL

S234. SECONDARY SCHOOL ORGANIZATION AND ADMINISTRATION.—A study of the outstanding problems of secondary school organization and administration. 10.201. 7:40-9:00. 3 s.h. MR. BOLMEIER

S235. THE NATURE, FUNCTION AND ORGANIZATION OF THE CURRICULUM.—A study of the fundamental bases for the curriculum, how the curriculum functions in the school program, and the techniques of curriculum construction. This is one of the courses required for the Master of Education degree without thesis. Open to graduate students only. 2.201G. 11:00-12:20. 3 s.h. MR. CARR

S236. TEACHING READING IN THE SECONDARY SCHOOL.—A study of the nature of the reading process and of principles, methods, and materials for the development of effective reading attitudes and skills as applied both to developmental and remedial programs. The course provides practice with secondary-school children suffering reading retardation, including testing, diagnosis, and daily remedial teaching during the six weeks period. For secondary-school teachers of all subjects who wish to improve the reading and study habits of their students. A.2A. 9:20-10:40. 3 s.h. MISS RUDISILL

S255. GUIDANCE FUNCTIONS OF THE CLASSROOM TEACHER.—A consideration of the philosophy, methods and tools of guidance appropriate to the classroom teacher. This course is designed for students who do not plan to become guidance specialists, but who wish to apply the principles and techniques of guidance. Prerequisites: twelve hours in either education, or psychology, or a combination of the two. 10.204. 11:00-12:20. 3 s.h. MR. WEITZ

S267. THE TEACHING OF SCIENCE IN THE ELEMENTARY SCHOOL.—This course deals with such topics as aims and values, curriculum materials, classroom procedures, lesson planning, and grade placement for science teaching in the elementary school. 10.106C. 7:40-9:00. 3 s.h. VISITING PROFESSOR

S285. THE PREPARATION OF PROJECTED AND/OR RECORDED INSTRUCTIONAL AND PUBLIC RELATION MATERIAL.—This is a laboratory course for experienced school administrators or teachers. The student will be expected to plan and produce audio-visual aids to fit the subject he teaches or supervises. An administrator would plan and produce audio-visual aids for his in-service education or public relations program. Enrollment is limited to fifteen. 10.205. 11:00-12:20. 3 s.h. VISITING PROFESSOR



**S290. ADMINISTRATION OF SCHOOL PROPERTY.**—Planning and management of the school plant and its equipment to meet instructional, health, and community needs for immediate and long-range purposes. This course is intended especially for teachers and principals as well as for superintendents. Areas to be treated will include site selection; trends in design, lighting, ventilation, and heating; custodial service and maintenance; and financing. 10.210. 7:40-9:00. 3 s.h.

MR. STUMPF

Thesis research credits are offered in either term by those members of the graduate staff of Duke University who are in residence. For this seminar work either three or six semester hours of credits are given, depending upon the student's period of residence and the work accomplished. Hours are to be arranged by the students and professors concerned. Thesis seminars offered are as follows:

**S300X. THESIS SEMINAR IN PUBLIC SCHOOL ADMINISTRATION.**

**S317X. THESIS SEMINAR IN EDUCATIONAL PSYCHOLOGY.**

**S334X. THESIS SEMINAR IN SECONDARY EDUCATION.**

**S337X. THESIS SEMINAR IN ELEMENTARY EDUCATION.**

**S372X. THESIS SEMINAR IN PUBLIC SCHOOL SUPERVISION.**

(See also Aesthetics, Art, and Music, S151, p. 48, and Psychology, S232, p. 64.)

#### SECOND TERM

**S84. SOCIAL FOUNDATIONS OF EDUCATION.**—Survey of the place and function of education and an understanding of the school as a social institution. 2.201G. 9:20-10:40. 3 s.h.

MR. McLENDON

**S88. EDUCATIONAL PSYCHOLOGY: LEARNING AND MEASUREMENT.**—This course and Education 118 constitute a general introduction to the field of Educational Psychology. This course deals with (1) the psychology of learning, including: the nature of the learning process, general principles or laws of learning, the course of learning and forgetting, factors influencing efficiency in learning and retention and the transfer of training; and (2) measurement, including: the basic concepts in the measurement of intelligence, standardized achievement tests, the extent and significance of individual differences in ability and performance. Opportunity will be afforded for examination and study of a variety of tests of intelligence and achievement. 6.03. 7:40-9:00. 3 s.h.

MR. PETTY

**S204. THE SCHOOL AS AN INSTITUTION.**—The place of the school in society, its history and philosophy. Selected problems guiding the reading of students will be discussed in class. This is one of the courses required for the Master of Education degree without thesis. Open to graduate students only. 2.205. 7:40-9:00. 3 s.h.

MR. McLENDON

**S210. INTRODUCTION TO EDUCATIONAL RESEARCH.**—The general purpose of this course is to give the student an overview of research, acquaint him with the nature of research processes, and develop within him an appreciation of the essential characteristics of good research. This is one of the courses required for the Master of Education degree without thesis. Open to graduate students only. 2.105. 9:20-10:40. 3 s.h.

MR. STUMPF

For information regarding thesis seminar credits, see Term I.

## NURSING EDUCATION

### A DIVISION OF THE DEPARTMENT OF EDUCATION

MISS THELMA INGLES, R.N., DIRECTOR OF THE DIVISION OF  
NURSING EDUCATION. HANES HOUSE

#### FIRST TERM

**S84N. SOCIAL FOUNDATIONS OF NURSING EDUCATION.**—A special section of Education 84, applied to Nursing Education. A survey of major historical, philosophical, and sociological factors which have affected developments in nursing



and nursing education. The purpose of the course is to give the student a better understanding of the place of nursing in present day society and the responsibilities of the individual nurse toward that society. Hanes House 106. 7:40-9:00. 3 s.h.

MISS RAPPAPORT

**S117N. COMMUNITY NURSING.**—Designed for administrators, teachers, and supervisors in schools of nursing. Emphasis is on the integration of out-patient departments and community social and health agencies into the nursing school curriculum and on the preparation of nurses for community service. Hanes House 106. 9:20-10:40. 3 s.h.

MISS MASSEY

**S120N. NURSING EDUCATION: PROBLEMS IN NURSING CARE.**—Each student works on an individual problem designed to improve the nursing care of patients. Hours to be arranged. 3 s.h.

MISS LUEDECKE, MISS ZUKOWSKI

**S124N. NURSING EDUCATION: TEACHING OF NURSING ARTS.**—In this course an effort is made to help prospective teachers integrate the facts and principles of the natural, social, and medical sciences into the teaching of Nursing Arts. Although major emphasis is placed upon problems which are involved in teaching the first course, the concept of the Nursing Arts as an integral part of each clinical area is stressed. Hanes House 101. 11:00-12:20. 3 s.h.

MISS CRAWLEY

**S129N. THE PSYCHOLOGICAL ASPECTS OF NURSING CARE.**—This course is designed to help the student better understand how patients feel and why they may behave as they do. Special consideration will be given to problems such as resistance to treatment, lack of desire to get well, discouragement, and suspicion. The student may try new techniques in the Duke Hospital setting, if she so desires. Hanes House 101. 9:20-10:40. 3 s.h.

MISS ZUKOWSKI

**S136N. SEMINAR IN MEDICAL OR SURGICAL SPECIALTY.**—Directed study in a medical or surgical specialty. Each student works on a problem of major interest to her—such as care of the patient with cancer or care of the patient with heart disease. Individual research in the collection of original material. Hanes House Conference Room. 7:40-9:00. 3 s.h.

MISS INGLES

**S193N. WARD ADMINISTRATION AND TEACHING.**—This course is designed to help head nurses better understand their functions in planning and managing a program in a hospital division which will result in improved care of patients, greater satisfaction for professional and non-professional personnel and a more adequate teaching program for students and others. June 30-July 18. Hanes House 106. 9:20-10:40 and 11:00-12:20. 3 s.h.

MISS INGLES

## SECOND TERM

**S120N. NURSING EDUCATION: PROBLEMS IN NURSING CARE.**—Each student works on an individual problem designed to improve the nursing care of patients. Hours to be arranged. 3 s.h.

MISS LUEDECKE, MISS ZUKOWSKI

**S195N. PERSONNEL WORK IN SCHOOLS OF NURSING.**—The primary purpose of this course is to help nurses and supervisors to develop greater understanding of the principles of human behavior and greater ability to apply these principles in working with patients and others in hospital divisions and in establishing cooperative relationships with other departments of the hospital. Hanes House 106. 9:20-10:40. 3 s.h.

MISS JOHNSTON

## ENGLISH

PROFESSOR WILLIAM H. IRVING, CHAIRMAN—26-5 WEST DUKE BUILDING (EAST CAMPUS);  
PROFESSOR PAUL F. BAUM, DIRECTOR OF GRADUATE STUDIES—  
402 LIBRARY (WEST CAMPUS)

Candidates for the Master's degree in English are expected to have had at least twelve semester hours in undergraduate courses above the sophomore level. The Department may also require additional courses if the work of the student in his first term indicates inadequate preparation.

Master's candidates in English are required to elect S203. Those who have completed as many as twelve semester hours of graduate work should take also the bibliography course, S301, or its equivalent, at their earliest opportunity.

## FIRST TERM

S1. ENGLISH COMPOSITION.—A course in the fundamentals of English composition, oral and written, with special attention to sentence structure, syntax, common errors. Frequent themes. 3.201. 7:40-9:00. 3 s.h. MR. JORDAN

S2. ENGLISH COMPOSITION.—A continuation of course S1. 3.201. 11:00-12:20. 3 s.h. MR. JORDAN

S55. REPRESENTATIVE WRITERS.—Chaucer's Prologue to *The Canterbury Tales* and at least two tales; Shakespeare's *1 Henry IV* and *King Lear*; the *English Bible* (selections); Milton's *Paradise Lost* (selections), and some of the shorter poems. 2.301. 7:40-9:00. 3 s.h. MR. SANDERS

S131. ENGLISH LITERATURE, 1832-1900.—A study of the chief English writers of poetry, prose, and drama from Carlyle to Yeats. The major writers studied in the first semester are Carlyle, Tennyson, Browning, Macaulay, Mill, Newman, and Arnold. Collateral reading from novels of the period. Lectures, discussions, tests, and a term paper. 2.301. 9:20-10:40. 3 s.h. MR. SANDERS

S138. AMERICAN LITERATURE.—A survey of American literature from Colonial times to the present. Selections from the works of important authors are read, from Cotton Mather to Eugene O'Neill, and complete novels by Hawthorne, Melville, James, Howells, and others. Lectures, tests, and a term paper. 2.302. 7:40-9:00. 3 s.h. MR. TURNER

S233. AMERICAN LITERATURE SINCE 1870.—Selected works of the chief writers of the period. 2.302. 11:00-12:20. 3 s.h. MR. TURNER

S237. ENGLISH DRAMA, 1642-1800.—The Heroic Play and the Comedy of Manners of the Restoration period; and the important plays, serious and comic, of the eighteenth century. Lectures, class discussions, and short reports. 10.107. 7:40-9:00. 3 s.h. MR. WARD

S239. SHAKESPEARE.—A study of the plays and poems, with attention to sources, earlier criticism, and the work of Shakespeare's contemporaries. 2.201G. 1:40-3:00. 3 s.h. MR. GILBERT

S251. ENGLISH LITERATURE IN THE SEVENTEENTH CENTURY.—A survey course. The major works in prose, poetry, and drama from 1600 to the death of Dryden. Lectures, reports, and term papers. 3.07. 11:00-12:20. 3 s.h. MR. WARD

S349X. SEMINAR IN ENGLISH LITERATURE.—For students writing theses in English literature. Hours and credits to be arranged. 4.502. MR. BAUM

## SECOND TERM

S2. ENGLISH COMPOSITION.—Continuation of course S1. 3.07. 9:20-10:40. 3 s.h. MR. SMITH

S56. REPRESENTATIVE WRITERS.—Pope in *The Augustans* (English Masterpieces); Smollett, *Humphrey Clinker*; Keats, *Selected Poetry and Letters*; Thackeray, *Vanity Fair*; Shaw, *Major Barbara*, *St. Joan*; Yeats, *Collected Poems*; a modern novel to be selected. 3.106. 7:40-9:00. 3 s.h. MR. BOWMAN

S124. SHAKESPEARE.—Ten plays after 1600. Occasional tests and one or two papers. 3.106. 9:20-10:40. 3 s.h. MR. BOWMAN

S158. CONTEMPORARY FICTION.—Wide reading in contemporary novelists, from Thomas Hardy to James Joyce, with attention given to European literary and social influences. Written and oral reports. 3.07. 7:40-9:00. 3 s.h. MR. SMITH

S244. WORDSWORTH.—A detailed study of the more important minor poems, the *Prelude*, the *Excursion*, and the Prefaces. 3.08. 9:20-10:40. 3 s.h. MR. STOVALL

S256. THE AMERICAN NOVEL 1890-1940.—General reading in the development of the novel; analysis and class discussion of the following novels: Howells, *A Hazard of New Fortunes*; James, *The Ambassadors*; Norris, *McTeague*; Dreiser,

*Sister Carrie*; Wharton, *The Age of Innocence*; Lewis, *Arrowsmith*; Faulkner, *The Sound and the Fury*; Wolfe, *You Can't Go Home Again*. 3.08. 11:00-12:20. 3 s.h.  
MR. STOVALL

S350X. SEMINAR IN ENGLISH LITERATURE.—For students writing theses in English literature. Hours and credits to be arranged. 4.502. MR. GILBERT

## FORESTRY

PROFESSOR CLARENCE F. KORSTIAN, DEAN OF THE SCHOOL OF FORESTRY AND DIRECTOR OF GRADUATE STUDIES—308 SOCIAL SCIENCE BUILDING

Organized course work in the School of Forestry during the Summer Session is limited to plane surveying, forest surveying, and forest mensuration which are required of all students entering upon two years of study in technical forestry leading to the degree of Master of Forestry (M.F.).

Qualified students may engage in thesis research in certain branches of forestry during the Summer Session with the approval of the instructor concerned and the Dean of the School of Forestry or of the Director of Graduate Studies in the case of work taken through the Graduate School.

C.E. S110. PLANE SURVEYING.—Use of instruments; transit, stadia, and compass surveying; determination of meridian by observation on Polaris; differential and profile leveling; setting grade stakes; calculation of bearings, latitudes, departures and areas; methods of plotting; survey and plot of portions of campus by stadia, and transit and tape; care and adjustment of instruments. Prerequisites: G.E. 1 and trigonometry. (Four weeks, eight hours a day.) June 10-July 7. 47.117. 4 s.h.

S150. FOREST SURVEYING.—Application of plane surveying to forest problems; practice in making boundary, topographical and cover type surveys of forested tracts, using both intensive and extensive methods; forest mapping and surveying using aerial photos. Work includes use of transit, level, plane table, traverse board, topographic abney, slope tape, aneroid barometer, staff compass, and aerial photo interpretation equipment. Prerequisites: Civil Engineering S110 Plane Surveying, or equivalent. (Five weeks, eight hours a day.) July 8-August 11. 10.322. 5 s.h.  
MR. CHAIKEN

S151. FOREST MENSURATION.—Field studies in methods of measuring content and growth of trees and forest stands; practice in timber estimating, log scaling, use of mensurational instruments, and collection of basic data. (Four weeks, eight hours a day.) August 12-September 8. 9.101. 4 s.h.  
MR. SCHUMACHER

S261A. FOREST SOILS.—Origin, development, and classification of soils with special emphasis on those developed in humid climates; morphological, physical, and chemical properties of soils in relation to growth of trees and the composition of forest stands; effect of forest on soils. Prerequisites: Chemistry 1 and 2, and Physics 1 or equivalents; physical geology, mineralogy, petrology and analytical chemistry are also desirable. (This course will be given only if ten or more students enroll for it.) (Two weeks, eight hours a day.) June 23-July 6. 10.301. 2 s.h.  
MR. COILE

S357. RESEARCH IN FORESTRY.—Open to students whose research programs for the M.F. or D.F. degree have been approved by the Dean of the School of Forestry and the instructor responsible for directing the research and whose programs for the A.M. or Ph.D. degree have been approved by the Director of Graduate Studies and the instructor in charge. (Credits and schedule to be arranged.) June 10-August 28. 2 to 12 s.h. (Not more than one semester hour of credit per week for full time schedule or one semester hour each two weeks for half-time schedule.) (Consult courses 301-302 in Announcement of School of Forestry for letter designation of branches of forestry in which research is to be conducted.) 10.308.  
STAFF

## FRENCH

PROFESSOR B. R. JORDAN, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES OF THE  
DEPARTMENT OF ROMANCE LANGUAGES—214 CARR BUILDING  
(EAST CAMPUS)

## FIRST TERM

S1. ELEMENTARY FRENCH.—June 10-June 29. 3.101. 7:40-9:00 and 11:00-12:20. 3 s.h. MR. GRANT

S2. ELEMENTARY FRENCH.—June 30-July 18. 3.101. 7:40-9:00 and 11:00-12:20. 3 s.h. MR. GRANT

NOTE: A student enrolled in French S2 must also attend French S1, unless French I has been taken during Spring Semester 1953.

S3. INTERMEDIATE FRENCH.—Standard literary texts (short story, novel, drama) are used as the basis for intensive drill on the essentials of vocabulary, idiom, and construction. Extensive oral exercises are included in the reading objective. Prerequisite: French 1-2, or two units of high school French. 2.205. 7:40-9:00. 3 s.h. MR. CORDLE

S4. INTERMEDIATE FRENCH.—Continuation of French S3. Prerequisite: French 3 or equivalent. 2.205. 11:00-12:20. 3 s.h. MR. GIRARD

S51. INTRODUCTION TO FRENCH LITERATURE.—Selected texts in modern French literature (fiction and drama) are approached from the literary as well as the linguistic point of view. Throughout the course there is systematic oral practice based on topics within the reading assignments. Prerequisite: French 3-4, or equivalent. 3.108. 7:40-9:00. 3 s.h. MR. GIRARD

S52. INTRODUCTION TO FRENCH LITERATURE.—Continuation of French S51. Prerequisite: French 51, or equivalent. 3.108. 11:00-12:20. 3 s.h. MR. CORDLE

## GEOLOGY

PROFESSOR F. WILLARD BERRY, CHAIRMAN—019 SCIENCE (E)

## FIRST TERM

S51. GENERAL GEOLOGY.—This course is designed to give a general view of the surface features of the earth, their origin, structure, and materials. Illustrative materials are studied in the laboratory. Excursions may be made to neighboring points where principles of the science are studied in the field. Lectures or recitations, 8:00-11:00 daily; laboratory 2:00-5:00, Monday through Thursday, June 23-July 18. 09 Science Building, East Campus. 4 s.h. MR. BERRY

## SECOND TERM

S52. GENERAL GEOLOGY.—This course is designed to give some knowledge of the chief events of the earth's history. Excursions may be made to suitable neighboring localities. Lectures or recitations, 8:00-11:00 daily; laboratory 2:00-5:00 Monday through Thursday, July 21-August 15. 09 Science Building, East Campus. 4 s.h. MR. BERRY

## GERMAN

PROFESSOR CLEMENT VOLLMER, CHAIRMAN—106A SOCIAL SCIENCE BUILDING  
(WEST CAMPUS)

## FIRST TERM

S1. ELEMENTARY GERMAN.—The fundamentals of grammar and pronunciation; vocabulary drill, translation, and dictation. Emphasis upon a sound reading knowledge of the language and individual achievement. June 10 to June 29. 10.106b. 9:20-10:40 and 1:40-3:00. 3 s.h. MR. MAXWELL



**S2. ELEMENTARY GERMAN.**—The equivalent of the second college semester of German; intensive reading of graded material; grammar and vocabulary drill; dictation and sight translation. June 30-July 18. 10.106b. 9:20-10:40 and 1:40-3:00. 3 s.h. MR. MAXWELL

**NOTE:** A student enrolled in German S2 must also attend German S1, unless German I has been taken during Spring Semester 1953.

**S3. INTERMEDIATE GERMAN.**—Grammar and composition; dictation, spoken German; reading of narrative and dramatic prose. 10.106b. 7:40-9:00. 3 s.h. MR. WILSON

**S4. INTERMEDIATE GERMAN.**—Grammar and composition; dictation, spoken German; reading of narrative and dramatic prose. Prerequisite: German S3. 10.106b. 11:00-12:20. 3 s.h. MR. WILSON

## GREEK

ASSOCIATE PROFESSOR JAMES N. TRUESDALE, CHAIRMAN—303 GRAY (WEST CAMPUS)

### FIRST TERM

**S121. GREEK LITERATURE: HOMER.**—*Iliad and Odyssey*. The purpose of this course is to give a general survey of the life and civilization of the Greeks, especially to those who have never studied the language but wish to become acquainted with some of the choicest portions of the literature by the use of translations. The *Iliad* and the *Odyssey* are read in translation, and the excavations and discoveries at Troy and other cities of the Aegean age are discussed.

MR. TRUESDALE AND MR. ROSE

S121.1. 3.205. 7:40-9:00. 3 s.h.

S121.2 2.201G. 7.40-9:00. 3 s.h.

**S122. GREEK LITERATURE: THE TRAGIC POETS.**—The purpose of this course is similar to that of course S121. Many of the extant plays of Aeschylus, Sophocles, and Euripides are studied in English translations. 3.205. 9:20-10:40. 3 s.h. MR. TRUESDALE

## HEALTH AND PHYSICAL EDUCATION

E. M. CAMERON, DIRECTOR, TRINITY COLLEGE AND COLLEGE OF ENGINEERING—  
109 GYMNASIUM (WEST CAMPUS)

### FIRST TERM

**PE S57.—VOLLEY BALL-TENNIS.** Gymnasium. Hours to be arranged. 1 s.h. (M)

**PE S65.—HISTORY AND PRINCIPLES OF PHYSICAL EDUCATION.**—A study of the objectives and principles upon which physical education is based. The history of physical education is studied in order to show the changes in objectives, principles and methods, and as an aid in the interpretation of trends. Open to Sophomores, Juniors, and Seniors. Gymnasium. 9:20-10:40. 3 s.h.

MR. AYCOCK

**PE S190. PROTECTIVE PRACTICES IN PHYSICAL EDUCATION.**—Training and conditioning of athletic teams and the prevention, diagnosis, and treatment of athletic injuries. Gymnasium. 1:40-3:00. 3 s.h.

MR. MONTFORT

## HISTORY

PROFESSOR CHARLES S. SYDNOR, CHAIRMAN—101 LIBRARY (WEST); PROFESSOR E. MALCOLM CARROLL, DIRECTOR OF GRADUATE STUDIES—406 LIBRARY (WEST CAMPUS)

For admission to candidacy for a Master's degree in History the student must present a total of eighteen semester hours of prior work in History, of which at least six must be in American History if he plans to take his major work in that



field. Before enrolling for thesis supervision, candidates for the Master's degree are required to complete at least three semester hours of seminar work and are strongly urged to enroll for this work in the second term of their attendance in the Summer Session. (See courses numbered 300 or above.)

### FIRST TERM

**S51. HISTORICAL BACKGROUND OF THE WORLD TODAY 1500-1871.**—The central fact of the expansion of Europe underlies the content of the course. The chief themes are: the contest between liberty and authority in the modern state, changing economic theory and organization, and the problems of peace and war among the states, including the Western infiltration of Asia, Latin America, and Africa, and the rise of the United States as a world power. 2.01. 9:20-10:40. 3 s.h. MR. COLTON

**S63. NAVAL HISTORY AND ELEMENTARY STRATEGY.**—After a review of earlier periods, attention is given to the rise of sea-power and its importance in more recent times and to naval actions, especially in the two World Wars. This course is not open to students who have N.S. 102. 2.01. 11:00-12:20. 3 s.h. MR. ROPP

**S91. THE DEVELOPMENT OF AMERICAN DEMOCRACY TO 1865.**—This course is a study of trends vital to an understanding of the United States today. The main theme is the development of American democracy. Problems of foreign policy, the growth of capitalism, political practices, social behavior, and conflicting ideals are considered in relation to this main theme. 2.02. 9:20-10:40. 3 s.h. MR. JOHNSTON

**S105. POLITICAL AND CONSTITUTIONAL HISTORY OF ENGLAND.**—The origins and evolution of the principal institutions of England, related to their setting in a changing society. 2.02. 7:40-9:00. 3 s.h. MR. HAMILTON

**S238. THE SOUTH FROM 1877 TO THE PRESENT.**—A study of the social, cultural, economic, and political development of the South since reconstruction. 2.02. 11:00-12:20. 3 s.h. MR. JOHNSTON

**S246. WAR IN THE MODERN WORLD.**—This course is concerned with the relations between warfare and modern political, economic and social conditions. The work deals with the period from 1871 to the present, with an analysis of recent land, sea, and air warfare. 2.01. 7:40-9:00. 3 s.h. MR. ROPP

**S301. SEMINAR IN HISTORICAL RESEARCH.** Hours to be arranged. 3 s.h. MR. HAMILTON

### SECOND TERM

**S52. HISTORICAL BACKGROUND OF THE WORLD TODAY 1871-1940.**—A continuation of History S51. 2.01. 9:20-10:40. 3 s.h. MR. FERGUSON

**S92. THE DEVELOPMENT OF AMERICAN DEMOCRACY, 1865 TO THE PRESENT.**—The emphasis is on the emergence of contemporary problems. 2.02. 9:20-10:40. 3 s.h. MR. WATSON

**S267. THE TRANSITION FROM MEDIEVAL TO MODERN ENGLAND.**—A study of the changes in English society and ideas from the time of Edward III to that of Elizabeth. 2.01. 7:40-9:00. 3 s.h. MR. FERGUSON

**S302. SEMINAR IN HISTORICAL RESEARCH.** Hours to be arranged. 3 s.h. MR. WATSON

## LATIN AND ROMAN STUDIES

PROFESSOR ROBERT S. ROGERS, CHAIRMAN—204 CARR (EAST CAMPUS)

### FIRST TERM

**S111. ROMAN LITERATURE IN ENGLISH TRANSLATION.**—Selected readings of Latin literature in English translation with emphasis on the drama, lyric poetry, and the varied contributions of Cicero to literature. 2.205. 9:20-10:40. 3 s.h. MR. ROSE

## MATHEMATICS

PROFESSOR J. J. GERGEN, CHAIRMAN—134 PHYSICS BUILDING (WEST CAMPUS); PROFESSOR  
J. H. ROBERTS, DIRECTOR OF GRADUATE STUDIES—230 PHYSICS  
BUILDING (WEST CAMPUS)

For admission to candidacy for the degree of Master of Arts with major in Mathematics, a student must have a minimum of twenty-four semester hours credit for course work in Mathematics and related fields. This course work must be approved by the Department through the Director of Graduate Studies. It must include differential and integral calculus and an additional six semester hours of work in mathematical courses of at least Junior level.

To obtain the Master of Arts degree with major in Mathematics, a candidate must complete eighteen semester hours of course work in Mathematics, six semester hours of course work in a minor field, and a thesis in Mathematics. The course work must be in courses numbered not less than 200. All work must be approved by the Department through the Director of Graduate Studies. To help students meet the thesis requirement, the Department offers Thesis Seminar, S389X, in which supervision of thesis writing is available.

Each student should, as early as possible in his graduate work, discuss his program with the Director of Graduate Studies or his representative.

## FIRST TERM

S1. INTERMEDIATE ALGEBRA.—Elementary topics, factoring, fractions, linear equations in one, two, and three unknowns, functions and graphs, exponents and radicals, elements of quadratic equations. Prerequisite: one unit in algebra and one unit in geometry. 49.132. 7:40-9:00. 3 s.h. STAFF

S5. COLLEGE ALGEBRA.—Advanced topics in quadratic equations, systems involving quadratics, variation, binomial theorem, progressions, inequalities, theory of equations, determinants, partial fractions, probability. This course and Mathematics 6 may be taken concurrently. Prerequisite: Mathematics 1, or one and one-half units in algebra and one unit in geometry. 49.135. 7:40-9:00. 3 s.h.

MR. GERGEN

S6. PLANE TRIGONOMETRY.—Logarithms, right and oblique triangles, radian measure, graphs of trigonometric functions, inverse trigonometric functions, trigonometric identities and equations. This course and Mathematics 5 may be taken concurrently. Prerequisite: Mathematics 1, or one and one-half units in algebra and one unit in geometry. 49.135. 9:20-10:40. 3 s.h.

MR. THOMAS

S52. CALCULUS II.—Integration of elementary functions, areas, solids of revolution, length of arc, surfaces of revolution, centroids, moments of inertia, pressure. Prerequisite: Mathematics 51. 49.135. 11:00-12:20. 3 s.h.

MR. CARLITZ

S206. PLANE GEOMETRY AND TRIGONOMETRY FROM THE ADVANCED STANDPOINT.—Postulates for Euclidean geometry, duality, non-Euclidean geometries, geometric rigor, theory of linear and angular measurement, accuracy of logarithmic tables and calculations, nomograms and other computing aids. Prerequisite: Calculus. 49.138. 7:40-9:00. 3 s.h.

MR. THOMAS

S224. STATISTICS.—Representation of data, averages, measures of dispersion, comparison of distributions, correlation, probability functions, normal curve and generalizations, sampling, multiple and partial correlation. Prerequisite: Calculus. 49.138. 11:00-12:20. 3 s.h.

MR. GERGEN

S225. THEORY OF EQUATIONS.—Permutations, determinants, matrices, linear systems, polynomials and their roots, constructibility, simultaneous equations. Prerequisite: Calculus. 49.138. 9:20-10:40. 3 s.h.

MR. CARLITZ

S389X. THESIS SEMINAR.—Supervision of individual theses in algebra, analysis and geometry. Students should consult the Director of Graduate Studies or his representative before registering. Thesis credit only. Hours to be arranged.

MESSRS. CARLITZ, GERGEN, THOMAS

## DUKE UNIVERSITY

## SECOND TERM

S50. PLANE ANALYTIC GEOMETRY.—Rectangular and polar coordinates, loci, straight lines, conic sections. This course and Mathematics 51 may be taken concurrently. Prerequisites: Mathematics 5 and 6. 49.135. 7:40-9:00. 3 s.h.

MR. DRESSEL

S51. CALCULUS I.—Differentiation of elementary functions, curve tracing, maxima and minima, motion, curvature, indeterminate forms. Prerequisite: Must be preceded or accompanied by Mathematics 50. 49.135. 9:20-10:40. 3 s.h.

MR. ROBERTS

S53. CALCULUS III.—Introduction to solid analytic geometry, partial differentiation, multiple integrals, series, introduction to differential equations. Prerequisite: Mathematics 52. 49.135. 11:00-12:20. 3 s.h.

MR. ROBERTS

S275. PROBABILITY.—The basic laws of probability and their applications in various fields. Random variables, central limit theorem, law of large numbers. Poisson distribution, probability integral. Prerequisite: Calculus. 49.138. 9:20-10:40. 3 s.h.

MR. DRESSEL

S389X. THESIS SEMINAR.—Supervision of individual theses in algebra, analysis, and geometry. Students should consult the Director of Graduate Studies or his representative before registering. Thesis credit only. Hours to be arranged.

MESSRS. DRESSEL, ROBERTS

## SOLID GEOMETRY

August 31-September 10. 49.135. 8:30-11:30. 0 s.h.

MR. ELLIOTT

## PHILOSOPHY

PROFESSOR GLENN NEGLEY, CHAIRMAN—3-1 WEST DUKE BUILDING (EAST CAMPUS);

PROFESSOR CHARLES A. BAYLIS, DIRECTOR OF GRADUATE STUDIES—  
3-1 WEST DUKE BUILDING (EAST CAMPUS)

## FIRST TERM

S48. LOGIC.—A study of the conditions of effective thinking and clear communication, and of typical sources of fallacies. Examination of the basic principles of deductive reasoning (making explicit the implications of statements) and of inductive reasoning (the formulation and testing of hypotheses on the basis of experience and experiment). Emphasis on practical illustrations and applications. 2.301. 11:00-12:20. 3 s.h.

MR. WELSH

S91. INTRODUCTION TO PHILOSOPHY.—This course is intended to acquaint the student with the nature of philosophical problems. 2.302. 9:20-10:40. 3 s.h.

MR. WELSH

## SECOND TERM

S48. LOGIC.—A study of the conditions of effective thinking and clear communication, and of typical sources of fallacies. Examination of the basic principles of deductive reasoning (making explicit the implications of statements) and of inductive reasoning (the formulation and testing of hypotheses on the basis of experience and experiment). Emphasis on practical illustrations and applications. 10.204. 11:00-12:20. 3 s.h.

S91. INTRODUCTION TO PHILOSOPHY.—This course is intended to acquaint the student with the nature of philosophical problems. 10.204. 9:20-10:40. 3 s.h.

## PHYSICS

PROFESSOR WALTER M. NIELSEN, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES—119  
PHYSICS BUILDING (WEST CAMPUS)

## FIRST TERM

S51. GENERAL PHYSICS.—This course treats the basic principle of general physics in a more quantitative manner than Physics 1-2. It is designed for Sophomores and Juniors and meets in a thorough way the physics requirements

for entrance into the study of either medicine or engineering, and is well suited for the general student. A limited number of Freshmen who present physics for entrance and who have completed the required mathematics may be admitted by permission of the instructor. (Not open to students who have completed Physics 1-2). Prerequisite: Mathematics 5-6 or equivalent. Lecture and recitation daily, 8:30-9:50 and 10:10-11:30; laboratory three days per week, 1:00-4:00. June 16-July 18. 49.113. 5 s.h. Mr. CARPENTER

S353X. THESIS SEMINAR.—Students who are properly qualified may carry on research work under direction. Credits and hours to be arranged. STAFF

## SECOND TERM

S52. GENERAL PHYSICS.—A continuation of Physics S51. Prerequisite: Physics S51. Lecture and recitation daily, 8:30-9:50 and 10:10-11:30; laboratory three days per week, 1:00-4:00. July 21-August 21. 49.113. 5 s.h. Mr. CARPENTER

S353X. THESIS SEMINAR.—For description, see First Term. STAFF

## POLITICAL SCIENCE

PROFESSOR ROBERT S. RANKIN, CHAIRMAN—308 LIBRARY (WEST CAMPUS); PROFESSOR R. R. WILSON, DIRECTOR OF GRADUATE STUDIES—311 LIBRARY (WEST CAMPUS)

### FIRST TERM

S61. AMERICAN GOVERNMENT AND POLITICS.—A study of the American political system, emphasizing the organization and functioning of the national government. 10.107. 9:20-10:40. 3 s.h. Mr. HANSON

S161. GOVERNMENT AND PLANNING.—A study of selected aspects of physical and economic planning. Emphasis is placed upon governmental organization and procedures involved in planning, with some reference to British and Russian procedure. 10.205. 7:40-9:00. 3 s.h. Mr. HANSON

S229. RECENT AND CONTEMPORARY POLITICAL THEORY.—An analytical study of liberalism, socialism and fascism, with special attention to the political theories of the nineteenth and twentieth centuries. 10.209. 7:40-9:00. 3 s.h. Mr. HALLOWELL

S231. AMERICAN POLITICAL THEORY.—An analysis of the main currents in American political thought from colonial beginnings to the present day, with emphasis upon the development of liberalism in America. 10.209. 11:00-12:20. 3 s.h. Mr. HALLOWELL

### SECOND TERM

S62. AMERICAN GOVERNMENT AND POLITICS.—A continuation of S61. For description see Term I. 10.107. 9:20-10:40. 3 s.h. Mr. SIMPSON

S125. AMERICAN POLITICAL PARTIES AND PRACTICAL POLITICS.—A study of the historical development, organization, and methods of political parties in the United States. 10.107. 7:40-9:00. 3 s.h. Mr. SIMPSON

S230. AMERICAN POLITICAL INSTITUTIONS.—A study of the information and development of institutions of the national government in the United States, with historical and analytical treatment. 10.205. 9:20-10:40. 3 s.h. Mr. NIXON

S261. REGIONAL GOVERNMENT.—A study of principles and administrative arrangements developed for the conduct of governmental activities which are regional in scope. Attention is given to decentralized administration of federal functions, regional conferences, interstate agreements and compacts, and intergovernmental arrangements between counties and other units of local government. 10.205. 11:00-12:20. 3 s.h. Mr. NIXON



## DUKE UNIVERSITY

## PSYCHOLOGY

PROFESSOR ELIOT H. RODNICK, CHAIRMAN—106 BIVINS BUILDING (EAST CAMPUS);  
 PROFESSOR KARL ZENER, DIRECTOR OF GRADUATE STUDIES—205  
 PSYCHOLOGY LABORATORY BUILDING (EAST CAMPUS)

For admission to candidacy for a Master's degree in psychology, the student must present a total of twelve semester hours in psychology beyond the introductory course, at least six semester hours of which must be taken in Senior-Graduate courses. In addition he must have credit for Zoology 1-2 or equivalent.

## FIRST TERM

S91-92. GENERAL PSYCHOLOGY.—An introduction to the facts, principles, and problems of normal adult psychology through a study of psychological methods as applied to motivation, emotions, perceptions, sensation, thinking, memory, learning, individual differences and personality. The course is a prerequisite for all other courses in psychology. Psychology S92 may not be taken without S91. 3.07. 9:20-10:40 and 1:40-3:00. 6 s.h.

MR. KIMBLE

S211. THE PROBLEM CHILD (also Education S211).—Study of problem behavior and adjustment in children with emphasis on the causes and treatment of conduct and neurotic disorders of the maladjusted child. Particular attention will be paid to mental hygiene principles in the handling of problem children in school and home. 2.105. 9:20-10:40. 3 s.h.

MR. FILER

S232. PSYCHOLOGY OF THE PHYSICALLY HANDICAPPED.—Survey of the psychological factors underlying adjustment to physical disabilities, with particular stress upon personality, emotional and social attributes. Selected case studies will be used to illustrate the integration of such factors in adjusting to home, school and hospital settings. These cases will stress the psychological factors which hinder learning and retraining procedures. Discussion will center about psychological techniques to produce more effective progress in rehabilitation. 9.110. 7:40-9:00. 3 s.h.

MR. GARMEZY

S303. RESEARCH.—Students who are properly qualified may carry on research work under direction. Hours to be arranged. 3 s.h.

MR. RODNICK

## SECOND TERM

S304. RESEARCH.—Students who are properly qualified may carry on research work under direction. Hours to be arranged. 3 s.h.

MR. ZENER

## RELIGION

PROFESSOR JAMES CANNON, DEAN OF THE DIVINITY SCHOOL—110 DIVINITY SCHOOL (WEST CAMPUS); PROFESSOR H. E. MYERS, CHAIRMAN OF THE DEPARTMENT OF RELIGION—204 DIVINITY SCHOOL (WEST CAMPUS); PROFESSOR H. SHELTON SMITH, DIRECTOR OF GRADUATE STUDIES IN RELIGION—308 DIVINITY SCHOOL (WEST CAMPUS)

## THE DEPARTMENT OF RELIGION

## FIRST TERM

S51. THE ENGLISH BIBLE.—Survey of the historical and prophetic books of the Old Testament with particular reference to the literary, historical and religious values. 3.08. 9:20-10:40. 3 s.h.

MR. WETHINGTON

S52. THE ENGLISH BIBLE.—Study of the Psalms, Wisdom Literature, and the literature of the New Testament with special attention given to the literary, historical, and religious values. 3.08. 7:40-9:00. 3 s.h.

MR. BRADLEY

S93. SURVEY OF THE WORLD'S GREAT RELIGIONS.—An introductory course designed to acquaint the student with the problems and methods of the historical study of religion. After a brief study of religion in primitive culture the world's living religions are dealt with in terms of the historical development and the beliefs, practices and contemporary significance of each. 3.101. 9:20-10:40. 3 s.h.

MR. BRADLEY



S94. THE BEGINNINGS OF THE CHRISTIAN CHURCH.—A study of the development of Christianity in the first two hundred years. Special emphasis will be given to the work of Paul, the later New Testament writings, the *Apostolic Fathers* and the early Apologists. 3.07. 7:40-9:00. 3 s.h. MR. SALES

## SECOND TERM

S51. THE ENGLISH BIBLE.—For description see Term I. 3.101. 9:20-10:40. 3 s.h. MR. PERRY

S52. THE ENGLISH BIBLE.—For description see Term I. 3.101. 7:40-9:00 3 s.h. MR. PRICE

S114. THE LIFE AND TEACHINGS OF JESUS.—This course considers the period in which Jesus lived, the record of his life, and the meaning of his teachings as recorded in the Synoptic Gospels. Not open for credit to students who take Religion 101. 3.108. 9:20-10:40. 3 s.h. MR. PRICE

S182. LIVING RELIGIONS OF THE WORLD.—A survey of the religious systems of India, China, and Japan, followed by a study of Judaism, Mohammedanism, and Christianity, the object being to trace the historical development of each religion. 3.108. 11:00-12:20. 3 s.h. MR. PERRY

## THE DIVINITY SCHOOL

Courses carrying credit in the Divinity School only are numbered from 101 to 199. Courses approved for credit in both the Divinity School and the Graduate School of Arts and Sciences are numbered above 200. Students entering the Divinity School for the first time in the Summer Session of 1953 will choose courses numbered from 101 to 199.

## FIRST TERM

S105. (DS). LIFE OF PAUL.—A study of Paul's life on the basis of Acts and the letters of Paul, emphasizing the permanent values in Paul's work and his contribution to the world. For Divinity School students and college seniors. 3.109. 9:20-10:40. 3 s.h. MR. MYERS

S111 (DS). INTRODUCTION TO CHRISTIAN SOCIAL ETHICS.—Christian norms for social policy and their application to the domestic, economic, political, and racial patterns of modern culture. For Divinity School students and college seniors. Not open to students who have had 114 D.S. 3.109. 11:00-12:20. 3 s.h. MR. BEACH

S158 (DS). CHRISTIAN EDUCATION AND THE COMMUNITY.—A study of the principles, practices, methods and materials of Christian Education as related to the total community life. For Divinity School students and college seniors. 3.109. 1:40-3:00. 3 s.h. MR. KALE

S178 (DS). PUBLIC WORSHIP.—The theory and practice of the worship of the Church; an analysis of the rites and ceremonies in "The Book of Worship." For Divinity School students. 3.109. 7:40-9:00. 3 s.h. MR. CLELAND

## SECOND TERM

S197 (DS). CULTURAL HISTORY OF PALESTINE.—A study of significant contributions to civilization made in ancient, mediaeval and modern Palestine with special reference to the three religions, Judaism, Christianity, and Islam. For Divinity School students and college seniors. 3.109. 1:40-3:00. 3 s.h. MR. STINESPRING

S199 (DS). THE AMERICAN SOCIAL GOSPEL.—A study of Protestant social thought and action in America since 1865. For Divinity School students and for college seniors. 3.109. 7:40-9:00. 3 s.h. MR. SMITH

S310 (DS). OLD TESTAMENT PROPHECY.—The prophetic movement in Israel with special emphasis on the prophets of the eighth century B.C. For Divinity School students and Graduate students. 3.109. 9:20-10:40. 3 s.h. MR. STINESPRING

S398 (DS). MODERN AMERICAN CHRISTOLOGY.—An analysis of the historical development of modern American conceptions of the person and work of Christ. For Divinity School students and Graduate students. 3.109. 11:00-12:20. 3 s.h. MR. SMITH

## SOCIOLOGY

PROFESSOR HOWARD E. JENSEN, CHAIRMAN—215E SOCIAL SCIENCE BUILDING (WEST CAMPUS); PROFESSOR HORNELL HART, DIRECTOR OF GRADUATE STUDIES—215D SOCIAL SCIENCE BUILDING (WEST CAMPUS)

The Department of Sociology offers graduate work leading to the A.M. and Ph.D. degrees. Before undertaking advanced work in this department, a student must have completed a minimum of twelve semester hours of approved preliminary courses in the field, and twelve additional semester hours in the field or in related work. A student who is deficient in the minimum required work will be asked to take additional undergraduate courses agreed upon in conference with the Director of Graduate Studies.

Candidates for advanced degrees in Sociology usually take minor work in Psychology, Economics, Political Science, Education, History, or Religion. Detailed requirements for the minor work, and for majors in other departments who wish to present Sociology as minor work, may be obtained from the Director of Graduate Studies.

### FIRST TERM

S91-92. GENERAL SOCIOLOGY.—An introduction to the scientific study of social life, its origin, evolution, and organization as illustrated by the study of a number of concrete social problems. 10.215. 7:40-9:00 and 11:00-12:20. 6 s.h.

MRS. WHITRIDGE

(Course 91-92, or 101, or 111, or 112 is prerequisite to all other courses in the department. Course 91-92, or 101 is required of all students majoring in the department.)

S235. URBAN SOCIOLOGY.—A study of the city and civilization, the newspaper, the social survey, the slum and housing, neighborhoods and natural areas, urban institutions, urban problems, and city planning. 10.216. 9:20-10:40. 3 s.h.

MR. THOMPSON

S238. RACE AND CULTURE.—A study of the nature of race and of the relationships and problems of race. 10.216. 1:40-3:00. 3 s.h.

MR. THOMPSON

S249. CHILD WELFARE.—A study in heredity and environment as factors in personality development; infant conservation; welfare responsibilities of the school, emphasizing the physical and mental well-being of the child, play, and compulsory and industrial education; child labor, diagnosis and treatment of delinquency; care of the dependent and neglected child; child-caring agencies, public and private; and a community program of child welfare. 10.206. 7:40-9:00. 3 s.h.

MR. HART

S250. MARRIAGE AND THE FAMILY.—An analysis of contemporary marriage and family experiences with emphasis on its functions, problems, resources, and values. Not open to students who have received credit for Religion 170. 10.208. 11:00-12:20. 3 s.h.

MR. HART

### SECOND TERM

S246. PUBLIC OPINION AND PROPAGANDA.—Nature and development of public opinion; relative to attitudes, biases, stereotypes and controversial issues; role of leaders, pressure groups and minority groups; use of radio, press, motion picture and graphic arts; propaganda and censorship; measurements of public opinion. 10.216. 9:20-10:40. 3 s.h.

MR. SCHETTLER

S274. CONTEMPORARY SOCIAL PROBLEMS.—A study of the causes, extent, significance, and constructive treatment of the principal forms of pathology in modern society; natural disasters, poverty, physical defectiveness, malnutrition, mental deficiency, mental disease, undirected leisure activities and unstandardized

commercial recreation, alcoholism, prostitution, vagrancy, and delinquency. Not open to students who have had Sociology 271. 10.216. 11:00-12:20. 3 s.h.

MR. SCHETTLER

## SPANISH

PROFESSOR BRADY R. JORDAN, CHAIRMAN OF DEPARTMENT OF ROMANCE LANGUAGES AND  
DIRECTOR OF GRADUATE STUDIES—214 CARR BUILDING (EAST CAMPUS); ASSOCIATE  
PROFESSOR GIFFORD DAVIS, DIRECTOR OF THE SCHOOL OF SPANISH  
STUDIES—201 GRAY

### FIRST TERM

S1. ELEMENTARY SPANISH.—Essentials of grammar, reading of appropriate material, drill in the spoken language. June 10-29. 2.101. 7:40-9:00 and 11:00-12:20. 3 s.h.

MR. TORRE

S2. ELEMENTARY SPANISH.—Continuation of S1. June 30-July 18. 2.101. 7:40-9:00 and 11:00-12:20. 3 s.h.

MR. TORRE

NOTE: A student enrolled in S2 must also attend S1 unless he has passed Spanish 1 in the immediate spring semester.

S3. INTERMEDIATE SPANISH.—Reading in standard literary text; review of verbs and syntax; exercises in the spoken language based on the reading text; constant use of Spanish as the medium of instruction. 2.102. 7:40-9:00. 3 s.h.

MR. DAVIS

S4. INTERMEDIATE SPANISH.—Reading of modern short stories and novels, with emphasis on achievement of ability to read without translation; continued oral-aural drill; idiom study and grammar review as necessary. 2.102. 11:00-12:20. 3 s.h.

MR. FEIN

S65. INTRODUCTION TO MODERN SPANISH LITERATURE.—Study of representative masterpieces; brief lectures in Spanish; collateral reading of critical commentaries. 2.105. 7:40-9:00. 3 s.h.

MR. FEIN

S68. INTRODUCTION TO SPANISH-AMERICAN LITERATURE.—Study of typical works, chiefly of the modern period; brief lectures on literary, social and cultural backgrounds and tendencies; collateral readings and reports. 2.105. 11:00-12:20. 3 s.h.

MR. ANDERSON IMBERT

S174. CONVERSATION AND PRONUNCIATION.—The aim of this course is two-fold: to improve the student's pronunciation and to increase his power of oral expression. The elements of Spanish phonetics will be presented in conjunction with practical exercises. Practice in oral expression will be afforded by class discussion of selected topics. 3.106. 7:40-9:00. 3 s.h.

MR. PREDMORE

S247. CONTEMPORARY TRENDS IN HISPANIC LITERATURE.—This survey will cover the last fifty years of literary production both in Spain and in Spanish America. It will show the unity and diversity of national contributions within the same cultural process and will characterize the most representative periods, tendencies, genres, and literary figures. 3.106. 9:20-10:40. 3 s.h.

MR. ANDERSON IMBERT

S260. ADVANCED COMPOSITION AND SYNTAX.—Study of fundamental difficulties in the language; practice in writing idiomatic Spanish; exercises in free composition. 3.106. 11:00-12:20. 3 s.h.

MR. PREDMORE

## ZOOLOGY

PROFESSOR IRVING E. GRAY, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES—218 BIOLOGY  
BUILDING (WEST CAMPUS)

For admission to candidacy for a Master's degree in Zoology, a student should have completed an undergraduate major in Zoology (courses in General Science and Botany are not counted as a part of a Zoology major). This normally amounts to about twenty-four semester hours, which should be distributed among various

fields of Zoology, and must include Vertebrate Zoology or Comparative Anatomy, Physiology, and Embryology, passed with creditable grades. A candidate should also have completed at least one year of Chemistry. Work for the degree will require eighteen hours in advanced courses in Zoology, and six hours in another department for a minor, in addition to a thesis. Before registration for a degree, students should confer with the Director of Graduate Studies for the Department. Students not candidates for a degree may take courses offered if they have necessary prerequisites but may not count them toward a degree until an undergraduate major has been completed.

#### FIRST TERM (on Duke Campus)

**S1. GENERAL ZOOLOGY.**—A brief survey of the animal kingdom. Lectures, recitations and laboratory daily, 8:00-12:00, 2:00-4:00. June 23-July 18. 9.120, 9.121. 4 s.h. MR. BARNES

**S53. COMPARATIVE VERTEBRATE ANATOMY.**—The anatomy and evolution of the organ systems of vertebrates. Prerequisite: Zoology 2. Lectures, recitations and laboratory daily, 8:00-12:00, 2:00-4:00. June 23-July 18. 9.117, 9.016. 4 s.h. MR. ROBERTS

**S219. SPECIAL PROBLEMS.**—Seniors who have had proper training may be permitted to undertake special work. Permission must be obtained in advance from the Director of Undergraduate Studies and the instructor under whose direction the student wishes to work. Hours to be arranged. 2-6 s.h. STAFF

**S231. ACAROLOGY.**—An introductory study of the Acarina or mites and ticks with special emphasis on classification and biology. Lectures, recitations and laboratory daily, 8:00-12:00, 2:00-4:00. June 10-June 29. 9.119. 3 s.h. MR. BAKER AND MR. WHARTON

**S232. MEDICAL AND VETERINARY ACAROLOGY.**—The recognition, collection, culture, and control of Acarina important to public health and animal husbandry with special emphasis on the transmission of diseases. Lectures, recitations, and laboratory daily, 8:00-12:00, 2:00-4:00. Prerequisite: S231 or its equivalent. June 10-June 29. 9.113. 3 s.h. MR. STRANDTMANN AND MR. WHARTON

**S233. AGRICULTURAL ACAROLOGY.**—The recognition, collection, culture and control of scarine pests of crops and ornamentals. Lectures, recitations, and laboratory daily, 8:00-12:00, 2:00-4:00. Prerequisite: S231 or its equivalent. June 10-June 29. 9.113. 3 s.h. MR. PRITCHARD AND MR. WHARTON

**S353. RESEARCH.**—Hours to be arranged. 2-6 s.h. STAFF

#### FIRST TERM (Marine Laboratory at Beaufort, North Carolina)

**S203. MARINE ECOLOGY.**—A study of marine animals in relation to environment. Consideration of environmental factors, succession, rhythms, communities, intraspecific and interspecific relations, productivity, conservation, problems, etc., concerned with animal life in the ocean. Lectures, reviews, conferences, field and laboratory work. 6 s.h. MR. GRAY

**S214. OCEANOGRAPHY.**—A description of the marine environment including water masses (temperature and salinity distribution), current systems and topographic features of the oceans of the world. Physical properties of sea water, distribution of variables and the heat budget of the ocean will be considered. June 16-July 18. 5 s.h. MR. PRITCHARD

**S219. SPECIAL PROBLEMS.**—Hours to be arranged. 2-6 s.h. STAFF

**S353. RESEARCH.**—Hours to be arranged. 2-6 s.h. STAFF

#### SECOND TERM (on Duke Campus)

**S2. ANIMAL BIOLOGY.**—The principles of biology as applied to animals. Prerequisite: Zoology 1. Lectures, recitations and laboratory daily, 8:00-12:00, 2:00-4:00. July 21-August 15. 9.120, 9.121. 4 s.h. MR. VERNBERG

S92. GENERAL EMBRYOLOGY.—The fundamental principles of embryology as illustrated in frog, chick, and mammal. Prerequisite: Zoology 53. Lectures, recitations and laboratory daily, 8:00-12:00, 2:00-4:00. July 21-August 15. 9.117, 9.225. 4 s.h. MR. HORN

S219. SPECIAL PROBLEMS.—Hours to be arranged. 2-6 s.h. STAFF

S353. RESEARCH.—Hours to be arranged. 2-6 s.h. STAFF

#### SECOND TERM (Marine Laboratory at Beaufort, North Carolina)

S274. MARINE INVERTEBRATE ZOOLOGY.—A study of invertebrate animals that occur in the Beaufort region. A number of field trips will be made to a variety of habitats to study, collect, and classify animals in their natural environments. The structure and habits of living invertebrates as well as their behavior under certain experimental conditions will be studied in the laboratory. 6 s.h.

MR. BOOKHOUT

S219. SPECIAL PROBLEMS.—Hours to be arranged. 2-6 s.h. STAFF

S353. RESEARCH.—Hours to be arranged. 2-6 s.h. STAFF



DUKE UNIVERSITY SUMMER SESSION  
APPLICATION FOR DORMITORY ROOM

Application for room reservations and all correspondence concerning such reservation should be addressed to: Housing Bureau, Duke Station, Durham, North Carolina.

Room assignment will be made only upon the applicant's admission to the Summer Session, as certified by the Summer Session Office, and upon payment of full room rent. Applicants who expect to be in residence for longer than six weeks are urged to make advance reservation for the entire period and thus avoid, to the extent that housing arrangements make practicable, the necessity of moving from one room to another during the full term of residence.

Rental fees . . . etc. These fees are refundable provided the applicant cancels his room reservation at least fifteen (15) days before the opening of the session for which he is applying for admission.

If the applicant requests a double room but gives no preference of roommate, Bureau officials will try to assign a roommate of seemingly congenial interests. It is understood, however, that the responsibility for getting and keeping a roommate rests with the applicant; otherwise, it will be necessary for him to move to a single room or to make the indicated financial adjustment.

-----

Name..... Date.....

Present address.....

Permanent address.....

(Address to which mail always will be forwarded)

Present position.....

Address.....

Academic degrees earned.....

(College conferring)

(Degree)

(Date conferred)

If you are in college now, give name of institution and your class:

(Name of college)

(Class)

Department of your major subject.....

Will you be writing a thesis this summer? Yes..... No.....

Date of your expected arrival at Duke for the Summer Session.....

Number of weeks you expect to remain.....

Type of room desired: Single..... Double.....

Name of preferred roommate, if any.....

Address.....

## DIRECTIONS TO SUMMER SESSION APPLICANTS

All applicants for Summer Session courses who are not now in residence at Duke University must fill out accurately and in detail the form below and return it to the Director of the Summer Session. Preference in enrollment will be given to persons returning the form promptly, but a place in a particular course cannot be assured until all fees are paid. Undergraduates and graduates who are enrolled in a university or college other than Duke University and who are seeking to transfer summer session credits to the college in which they are matriculated should request a course approval form to be certified by their dean or registrar. Persons applying for admission to the Graduate School of Duke University should write the Dean of the Graduate School for the necessary forms in addition to completing the form below.

Signature..... Approved..... Date.....

### APPLICATION FOR ENROLLMENT IN THE DUKE UNIVERSITY SUMMER SESSION

Mr., Mrs., Miss.....  
(Please Print)

Street address, Rural route, or P. O. Box.....

Post Office..... State.....

Nationality..... Race.....

Please reserve a place for me in the following courses listed in the Summer Session Bulletin.

Department	No. of Course	Title of Course
.....	.....	.....
.....	.....	.....
.....	.....	.....

Name and address of High School from which you graduated.....

Have you attended a college? Yes..... No.....

Name and address of college.....

In what school or college of Duke University are you seeking to enroll (check one) :

- Undergraduate credits*
- ☐ Trinity College (men)
  - ☐ The Woman's College
  - ☐ College of Engineering
  - ☐ Special or unclassified
  - ☐ Credits for transfer

- Graduate credits*
- ☐ Graduate School, Arts and Sciences
  - ☐ Divinity School
  - ☐ School of Forestry
  - ☐ Special or unclassified
  - ☐ Credits for transfer

Have you applied for admission to the Graduate School?.....

Are you at present a college student?..... If so, where?.....

..... What class?.....

Are you a full-time teacher?.....

Name and address of school.....

Teaching position.....

Total number years teaching experience.....

Will your fees be paid by:

- (a) Yourself.....
- (b) Veterans' Administration, Public Law 346 or 16.....
- (c) Funds received under Public Law 550.....

Have you attended previous Summer Sessions at Duke: Yes.....

Years.....; No.....







**BULLETIN**  
**OF**  
**DUKE UNIVERSITY**



**The Graduate School  
of Arts and Sciences**

**ANNOUNCEMENTS FOR 1953-1954**

# Annual Bulletins

FOR GENERAL BULLETIN of Duke University, apply to *The Secretary*, Duke University, Durham, N. C.

FOR BULLETIN OF UNDERGRADUATE INSTRUCTION, apply to *The Secretary*, Duke University, Durham, N. C.

FOR BULLETIN OF THE COLLEGE OF ENGINEERING, apply to *The Secretary*, Duke University, Durham, N. C.

FOR BULLETIN OF THE GRADUATE SCHOOL OF ARTS AND SCIENCES, apply to *The Dean of the Graduate School*, Duke University, Durham, N. C.

FOR BULLETIN OF THE SCHOOL OF FORESTRY, apply to *The Dean of the School of Forestry*, Duke University, Durham, N. C.

FOR BULLETIN OF THE SCHOOL OF LAW, apply to *The Dean of the School of Law*, Duke University, Durham, N. C.

FOR BULLETIN OF THE SCHOOL OF MEDICINE, apply to *The Dean of the School of Medicine*, Duke University, Durham, N. C.

FOR BULLETIN OF THE SCHOOL OF NURSING, apply to *The Dean of the School of Nursing*, Duke University, Durham, N. C.

FOR BULLETIN OF THE DIVINITY SCHOOL, apply to *The Dean of the Divinity School*, Duke University, Durham, N. C.

FOR BULLETIN OF THE SUMMER SESSION, apply to *The Director of the Summer Session*, Duke University, Durham, N. C.

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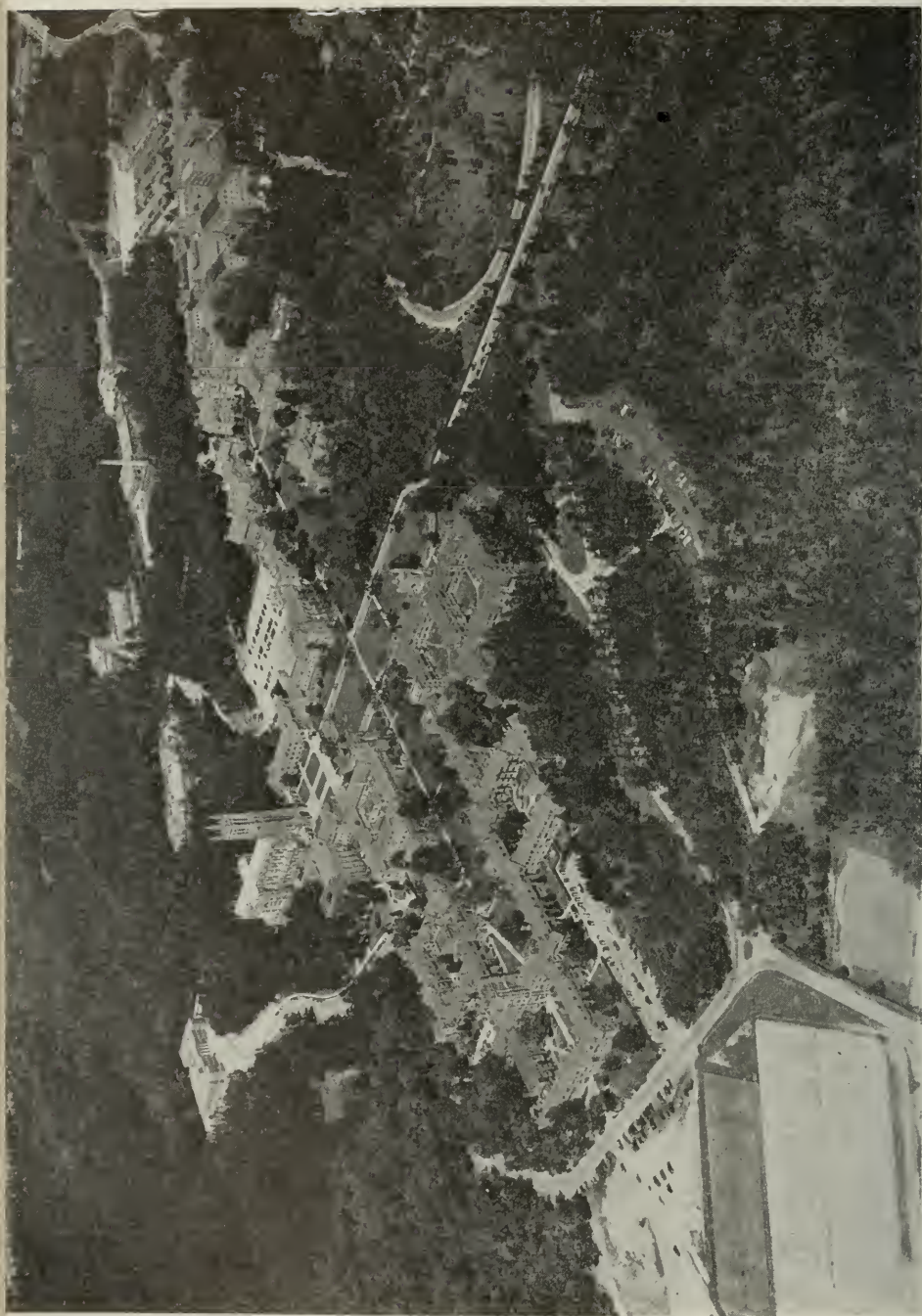
BULLETIN  
OF  
DUKE UNIVERSITY

THE GRADUATE SCHOOL  
OF ARTS AND SCIENCES



1952-1953 .  
ANNOUNCEMENTS FOR 1953-1954

DURHAM, NORTH CAROLINA  
1953



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# Calendar of the Graduate School



## *Summer Session 1953*

1953

- May 4-5 Monday, Tuesday—Advance registration for current students.
- June 10 Wednesday—Registration of students for Summer Session, first term.
- June 11 Thursday—Instruction begins for Summer Session, first term.
- July 8 Wednesday—French examinations for candidates for graduate degrees. Candidates register in the Graduate School Office not later than July 2.
- July 9 Thursday—Final date for filing with the Dean of the Graduate School statement of intention to complete Master's degree requirements during the first term.
- July 9 Last day for filing title of thesis.
- July 18 Saturday—First term of Summer Session ends.
- July 21 Tuesday—Registration of students for second term of Summer Session.
- July 22 Wednesday—Instruction begins for second term of Summer Session.
- July 27 Monday—Final date for filing with the Dean of the Graduate School statement of intention to complete Master's degree requirements during the second term.
- Aug. 28 Friday—Second term of Summer Session ends.

## *Academic Year 1953-1954*

- Sept. 14-16 Monday through Wednesday—Registration of graduate students for first semester.
- Sept. 16 Wednesday, 11:00 A.M.—Formal opening of the University.
- Sept. 17 Thursday—Instruction begins.
- Oct. 9 Friday—French examinations for candidates for graduate degrees, 4:00 P.M., 210 Divinity School. Candidates register in the Graduate School Office for these examinations not later than October 1.
- Oct. 15 Thursday—Last day for submitting thesis subjects for the degrees of Doctor of Philosophy and Doctor of Education.
- Oct. 16 Friday—German examinations for candidates for graduate degrees, 6:30 P.M., Social Science building. Candidates register in the Graduate School Office for these examinations not later than October 9.
- Nov. 16 Monday—Last day for submitting thesis subjects for the degrees of Master of Arts and Master of Education.
- Nov. 26 Thursday—Thanksgiving Day: a holiday.
- Dec. 11 Friday—Founders Day.
- Dec. 19 Saturday, 12:30 P.M.—Christmas recess begins.

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- Jan. 4 Monday, 8:00 A.M.—Instruction is resumed.
- Jan. 9-18 Reading period.
- Jan. 12-13 Tuesday and Wednesday—Registration of resident graduate students for second semester.
- Jan. 18 Monday—Mid-year examinations begin.
- Jan. 28 Thursday—Registration for second semester of students not in residence during first semester.
- Jan. 29 Friday—Mid-year examinations end.
- Feb. 2 Tuesday—Instruction is resumed.
- Feb. 12 Friday—French examinations for candidates for graduate degrees, 4:00 P.M., 210 Divinity School. Candidates register in the Graduate School Office for these examinations not later than February 3.
- Feb. 19 Friday—German examinations for candidates for graduate degrees, 6:30 P.M., 106 Social Science building. Candidates register in the Graduate School Office for these examinations not later than February 14.
- March 1 Monday—Last day for applying for University fellowships, graduate assistantships, and graduate scholarships.
- March 15 Monday—Students who expect to receive advanced degrees in June must notify the Graduate School Office before this date.
- March 27 Saturday, 12:30 P.M.—Spring vacation begins.
- April 5 Monday, 8:00 A.M.—Instruction is resumed.
- April 15 Thursday—Last day for submitting theses for degrees of Doctor of Philosophy and Doctor of Education.
- May 1 Saturday—Last day for paying special dissertation fee of \$50.00 required of candidates for the degrees of Doctor of Philosophy and Doctor of Education.
- May 1 Saturday—Last day for submitting theses for degrees of Master of Arts and Master of Education.
- May 3-17 Reading period.
- May 24 Monday—Final examinations, second semester, begin.
- June 3 Thursday—Final examinations, second semester, end.
- June 5 Saturday—Commencement begins.
- June 6 Sunday—Commencement sermon.
- June 7 Monday—Commencement address; graduating exercises.

# 1953

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# Officers of Administration



EDENS, ARTHUR HOLLIS, B.Ph., A.M., M.P.A., Ph.D., LL.D. <i>President of the University</i>	West Campus
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GROSS, PAUL MAGNUS, B.S., A.M., Ph.D. <i>Vice-President in the Division of Education and Dean of the University</i>	Hope Valley
SYDNOR, CHARLES SACKETT, A.B., M.A. (Oxon.), Ph.D., Litt.D. <i>Dean of the Graduate School of Arts and Sciences</i>	116 Pinecrest Road
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HERRING, HERBERT JAMES, A.B., A.M., LL.D. <i>Vice-President in the Division of Student Life and Dean of Trinity College</i>	Myrtle Drive
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## EXECUTIVE COMMITTEE OF THE GRADUATE FACULTY

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*Dean of the Graduate School of Arts and Sciences, ex officio*

WILLIAM H. CARTWRIGHT, B.S., M.A., Ph.D.

CLARENCE GOHDES, A.B., A.M., Ph.D.

MARCUS EDWIN HOBBS, A.B., A.M., Ph.D.

GLENN NEGLEY, A.B., M.A., Ph.D.

WALTER MCKINLEY NIELSEN, B.S. in E.E., Ph.D.

BENJAMIN ULYSSES RATCHFORD, B.S., A.M., Ph.D.

\* Resigned, August 1, 1952.



# Instructional Staff



## MEMBERS OF THE GRADUATE SCHOOL FACULTY

*The date denotes the first year of service at Duke University*

ADAMS, DONALD KEITH, (1931) A.B., M.A., Ph.D. <i>Professor of Psychology</i>	Cornwallis Road
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BAUM, PAULL FRANKLIN, (1922) A.B., A.M., Ph.D. <i>Professor of English</i>	112 Pinecrest Road
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*Professor of Education* 1019 West Markham Avenue
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*Professor of New Testament* 1308 West Markham Avenue
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\* Absent on sabbatical leave, 1952-53.

\*\* Absent on leave, 1952-53.

† Retired, September 1, 1952.

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- \* Deceased, April 28, 1952.

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\*\* Absent on leave, 1952-53.

† Absent on leave, 1952-53.



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- RODNICK, ELIOT H., (1949) B.A., Ph.D.  
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- RUDISILL, MABEL F., (1948) A.B., M.A., Ph.D.  
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\*\* Absent on leave, 1952-53.

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TRUESDALE, JAMES N., (1930) A.B., A.M., Ph.D. <i>Associate Professor of Greek</i>	Poplar Apartments
VOLLMER, CLEMENT, (1926) A.B., A.M., Ph.D. <i>Professor of German</i>	2114 Myrtle Drive
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WARD, CHARLES EUGENE, (1927) A.B., A.M., Ph.D. <i>Professor of English</i>	2429 Perkins Road
WARREN, JOHN RUSH, (1946) A.B., M.S. <i>Assistant Professor of Botany</i>	2002 Ruffin Street
WATSON, RICHARD LYNES, JR., (1939) A.B., Ph.D. <i>Associate Professor of History</i>	109 Pinecrest Road
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WEITZ, HENRY, (1950) A.B., Ed.M., Ed.D. <i>Associate Professor of Education</i>	517½ S. Duke Street
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BUNN, RONALD FREEZE B.A., Southwestern at Memphis	Political Science	Jonesboro, Ark.
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GEENSBURG, JOAN ARLENE A.B., Brooklyn College	English	Jersey City, N. J.
GLICKFIELD, CHARLOTTE WOODS B.S., East Tennessee State College	English	Johnson City, Tenn.
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GRODNER, ROBERT MAYNARD B.A., Brown University; M.S., University of Tennessee	Zoology	Miami Beach, Fla.
GUISE, STANLEY M. B.A., Kent State University	Romance Languages	Kent, Ohio
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HERRON, EUGENE WARREN B.S., Davidson College	Mathematics	Dalton, Ga.
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HOFFENBERG, DAVID B.S., College of the City of New York	Chemistry	Brooklyn, N. Y.
HOWELL, JOHN CHASE B.A., M.A., Texas Christian University	Sociology	Electra, Texas
HUSE, MARY MARTIN A.B., A.M., University of North Carolina	Psychology	Durham, N. C.
JAMES, CHARLES WILLIAM B.S., M.S., University of Florida	Botany	Dade City, Fla.
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KISH, GEORGE BELA A.B., M.A., Columbia University	Psychology	West Nyack, N. Y.
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KNIGHT, CLIFFORD BURNHAM, JR. B.A., M.A., University of Connecticut	Zoology	Brooklyn, N. Y.
L'ABATE, LUCIANO B.A., Tabor College; M.A., University of Wichita	Psychology	Florence, Italy
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POHRER, ROBERT GEORGE B.S., St. Louis University; A.M., Duke University	Mathematics	St. Louis, Mo.
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THAMES, HAROLD STANLEY B.A., M.A., University of Mississippi	Political Science	Jackson, Miss.
WATSON, JO CAMILLE B.A., Agnes Scott College	Chemistry	Elizabethton, Tenn.
WHITCOMBE, DAVID NILES B.A., Hamilton College	History	Rochester, N. Y.
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WINSTON, ANTHONY B.S., George Washington University; A.M., Duke University	Chemistry	Durham, N. C.
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CORPENING, JULIUS HARSHAW B.A., Wake Forest College; B.D., Southern Baptist Theological Seminary	Religion	Lancaster, S. C.
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New Bern, N. C.

# Admission



**T**O GRADUATE SCHOOL. Admission may be granted to a student who has received an A.B. or B.S. degree from an accredited institution after a four-year course of study. The undergraduate record should be well-rounded and of such quality as to give positive evidence of capacity for success in graduate study.

Before admission can be granted, the student must submit for appraisal the following documents: (a) An official transcript of all his college or graduate work, to be forwarded directly from the Registrar of his college to the Dean of the Graduate School at Duke University. (b) Two or three letters of recommendation, to be furnished by persons best qualified to judge the applicant as a prospective graduate student. According to a ruling of the Graduate School Faculty the following policy will be followed with respect to scores on the Graduate Record Examination: (a) If a student has already taken this examination, he must submit his scores for consideration by the Admissions officer; (b) under certain circumstances the Admissions officer may ask for scores on this examination before final decisions are made on the admission of the applicant; (c) some departments require the submission of these scores before final decisions are made on full admission to the Graduate School. If the other documents of the applicant are satisfactory, he may be granted "provisional" admission until the Graduate Record Examination scores are submitted and accepted. Arrangements to take this examination can usually be made through officials of the student's college, or by correspondence with the Educational Testing Service, 20 Nassau Street, Princeton, New Jersey.

**APPLICATION PROCEDURE.** A student desiring admission to the Graduate School, should request official application blanks from the Dean. These should be filled out fully and returned at the earliest moment. The other documents needed to complete the application, namely, transcripts, letters of recommendation, and Graduate Record Examination scores, must be forwarded directly from the institutions or individuals to the Dean of the Graduate School. In no case will such documents be accepted from the student.

The application and all supporting documents should be submitted to the Dean of the Graduate School not later than August 1 by those applying for the fall semester, or January 1 by those applying for the spring semester. Applications received later than these dates cannot be accorded the same review or consideration as those received earlier. It is the student's responsibility to make certain that his application is complete and in order before the dates specified.

When the application is accepted and approved, the student will receive a letter of admission, giving the date by which he must notify the Dean of the Graduate School of his intention to enroll for the term for which he is granted admission.

Admission, once granted, is valid only for the term or year specified. Should a student be unable to enter the Graduate School at that time but wishes later to be admitted to a subsequent term, he must re-apply for admission, following the usual procedure. But he need only bring his application up to date, if he re-applies within two years of the date when he was first admitted.

### *Registration*

Once the student has received notification of his admission to the Graduate School, but not until then, he may present himself for registration. During the registration periods, announced in the *Bulletin*, he first confers with the Director of Graduate Studies of his major department, who prepares an Approval Card, listing the course work to be taken during the semester. The student then presents this Approval Card to the Graduate School, which enrolls him officially in his courses.

WHO MUST REGISTER. (1) All students who enter course work or residence for credit; (2) all students who have completed minimum requirements for the Ph.D. degree, but are using in their research the facilities of the University; (3) all students who wish merely to "audit" a course or courses.

LATE REGISTRATION. All students are expected to present themselves for registration at the time stated in the *Bulletin*. *Those registering after the close of the announced registration period will be charged a late registration fee of five dollars.*

ADMISSION TO CANDIDACY. Admission to the Graduate School (outlined above) must not be confused with *admission to candidacy* for a degree. No student can be considered a candidate for the A.M. degree until he has received the approbation of the major department and has passed his initial 12 semester hours of graduate courses at Duke. (See special statement regarding candidacy for the Ph.D. degree, p. 38.)

After completing these, he may apply for admission to candidacy. Two conditions must have been fulfilled: (1) he must have received passing grades on all of his 12 semester hours, and (2) he must have received a grade of "G" (good) on at least 3 of the 12 semester hours for which he was enrolled. Should he not fulfill these conditions on the initial 12 semester hours, but does better work, signified by a substantial number of "G's" or better in a subsequent term, he may be granted permission then to re-apply for candidacy.

# Degrees Offered



THE Graduate School of Arts and Sciences now offers the following degrees: The Master of Arts (A.M.), The Master of Education (M.Ed.), The Doctor of Philosophy (Ph.D.), and The Doctor of Education (Ed.D.).

## *The Master of Arts Degree*

**UNDERGRADUATE PREREQUISITE:** As a prerequisite to graduate study in his major subject, the student must have completed a *minimum* of 12 semester hours of approved college courses in that subject, and 12 additional semester hours in that subject or in related work. Since some departments require more than 12 semester hours, the student should read carefully the special requirements listed by his major department, which are included as headnotes to the course offerings in the *Bulletin*.

**LANGUAGE REQUIREMENTS.** The candidate for the A.M. degree must have a reading knowledge of at least one foreign language. (The several departments reserve the right to specify which foreign languages are acceptable.) Evidence of such knowledge may be furnished in either of two ways: (1) by successfully passing an examination, officially conducted by the appropriate foreign language department at Duke University, or (2) by a transcript showing the completion of the third college year of one language, or the second college year of each of two acceptable foreign languages.

If the student must take the examination to satisfy this requirement, he may request—should he feel well qualified—the language examination required of candidates for the Ph.D. degree. By passing this examination, he may satisfy the requirements in this particular language for both degrees at one time.

**MAJOR AND MINOR SUBJECT.** In his graduate work, the student, in order to complete the course requirements for the A.M. degree, must present acceptable marks for a minimum of 24 semester hours of graduate courses. Of these, at least 12 semester hours must be in the major subject.

Outside of his major, the student must take a minimum of 6 semester hours in a minor subject, the department of the minor to be approved by his major department. The remaining 6 semester hours of the necessary 24 may be taken in either of these departments, or in an-



other approved by the major department and by the Graduate School Faculty. In addition to these he must present a thesis, which carries a credit of 6 semester hours. Thus, his earned credit for the degree totals a minimum of 30 semester hours.

**RESIDENCE REQUIREMENTS.** The candidate for the Master of Arts degree must spend, as a *minimum*, one full academic year in residence at Duke University. Often more time will prove necessary, depending upon the nature of the student's research problem and upon the student himself. Students who wish to complete their A.M. degree wholly by summer work must be in residence for 30 weeks, and present 30 semester hours of registered credit.

**TRANSFER OF CREDIT.** Under certain circumstances a maximum credit of 6 semester hours may be allowed for graduate courses completed elsewhere. The acceptance of credit up to this amount, however, will not reduce the minimum period of full-time registered residence at Duke University.

With the approval both of the student's major department and the Dean of the Graduate School, a student who is granted such transfer credit may be permitted to register for as much as 12 semester hours of thesis research instead of the usual 6 semester hours. Or he may be permitted to fill out his schedule with as much as 6 semester hours of further undergraduate training or 6 semester hours of required language courses on the undergraduate level. In no case will credit be allowed for extension or correspondence courses.

**TIME LIMITS FOR COMPLETION OF THE A.M. DEGREE.** The candidate for the A.M. degree must complete all of his course requirements and the thesis within a period of six calendar years from the date of his initial registration. Credits earned over a longer period of time cannot be credited toward a degree.

**THE THESIS FOR THE A.M. DEGREE.** The thesis for the A.M. degree should essentially demonstrate the student's ability to collect, arrange, interpret, and report pertinent material on his special research problem. Although a publishable document is not required, the thesis must be written in a literate style, and should exhibit the student's competence in scholarly methods and procedures.

**REGULATIONS AND PROCEDURES.** On or before November 15 of the academic year in which it is expected the degree will be conferred, the student must file with the Dean of the Graduate School, on the official form, the title of the thesis. This title must have the approval of the Director of Graduate Studies in the major department, and of the professor under whose direction the thesis will be written.

The student who completes all of his work for the degree and who expects to receive it at the regular commencement exercises in June,

must so notify the Graduate School office before the March 15 preceding.

Four bound, typewritten copies of the thesis must be submitted, in approved form, to the Dean of the Graduate School on or before May 1 preceding the June commencement at which the degree will be conferred. The copies will then be distributed to the several members of the examining committee. As specified by the Graduate Faculty, the thesis must be typed on the following grades of paper: the original must be green-lined paper of at least sixteen pound weight; the three copies must be on paper of at least thirteen pound weight. Both grades must be of seventy-five per cent rag content.

**THE EXAMINING COMMITTEE AND THE EXAMINATION.** After consultation with the professor who has directed the thesis, the Dean of the Graduate School appoints an examining committee composed of the director of the thesis and two other members of the Graduate Faculty, one of whom must be from a department other than that of the major.

The candidate appears before this committee for examination, which usually is restricted to the thesis and to the major field, and which lasts for about one and one-half hours.

If the candidate successfully stands his examination, the examining committee certifies to his passing by signing the title page of the thesis. The candidate then returns the original and one carbon copy of the thesis to the Dean of the Graduate School, who deposits them in the University Library.

### *The Master of Education Degree*

**PREREQUISITE.** The degree of Master of Education is granted ordinarily only to teachers or to others engaged in educational work.

Before a student is admitted to graduate study for this degree, he should have completed, on the undergraduate level, a minimum of 18 semester hours of approved work in education, including courses in Educational Psychology, and courses in the History of Education, Educational Sociology, or School Administration.

Early in the program of his work, the student must successfully pass two examinations: (1) a test of general ability, and (2) a test designed to determine his ability to write acceptable English. The student, before the degree is conferred, must also present evidence testifying to at least two years of teaching experience, gained either before his admission to course work, or concurrently with it.

**REQUIREMENTS FOR THE DEGREE.** The M.Ed. degree may be earned either with or without the presentation of a thesis:

**WITHOUT THESIS:** Students who elect this plan must present a total of 30 semester hours of credit. Twelve hours of this required

work must include the four basic courses: Education 204, 210, 217, and 235. If a student, by examination, can demonstrate his competency in the subject matter of two of these courses, he may be granted exemption from the required work in these courses. In no case may he claim exemption from more than two.

Other requirements are: a departmental major (i.e., in Nursing Education, Elementary Education, Public School Administration, Public School Supervision, or Secondary Education) of at least 12 semester hours, and a minor of at least 6 semester hours in a department other than Education. Toward the end of his residence the student must pass a comprehensive examination on his departmental major and on the content of the four basic courses. Permission to take such examinations must be obtained from the Director of Graduate Studies of the Department of Education, and a notice of intention must be filed with him at least three weeks before the announced dates of the examination.

**WITH THESIS:** Students who elect this plan are permitted to substitute a thesis for 6 semester hours of the required course work. The first 15 semester hours (12 in the Summer Session) must be passed with a grade of "G" (good) on at least 6 semester hours, and with no grade below an "S." The student must also present a thesis subject approved by the Professor of Education who intends to direct it, and by two other members of the staff in Education, including the Director of Graduate Studies. Two of the three members of the approving committee must be permanent members of the Duke University Graduate Faculty. The title of the thesis must be filed with the Dean of the Graduate School at the same time as the titles for the A.M. theses (see p. 34).

In addition to the thesis, the student must present at least 24 semester hours of course credit. Of these, 6 semester hours must be earned in *two* of the basic courses in the Department: Education 204, 210, 217, or 235. Of the remaining 18 or more semester hours, 6 semester hours must constitute a minor taken outside of the Department of Education; at least 12 semester hours must be taken in the student's departmental major.\*

The examination on the thesis is similar to that for the Master of Arts degree (see above, p. 36).

All of the work in fulfillment of the requirements for the M.Ed. degree, whether done in Summer Sessions, or in the regular academic year, must be completed within a period of six calendar years from the date of beginning.

\* Those who expect to attend Summer Sessions should consult the statement on pages 54-55, regarding course requirements.

## *The Doctor of Philosophy Degree*

The Ph.D. degree is essentially a research degree. Although course work is a necessary part of the student's program, the mere accumulation of course credits will not be sufficient for attaining this degree. The granting of the Ph.D. is based primarily upon the student's knowledge of a specialized field of study and upon the production of an acceptable dissertation embodying the results of original research.

Before undertaking a program of advanced work toward the Ph.D., the student should consult with the Dean of the Graduate School or the Director of Graduate Studies in his major department to determine the possibility of securing necessary instruction and supervision of research in his field of specialization.

**REQUIREMENTS FOR THE PH.D. DEGREE.** The formal requirements, discussed in detail below, for the Ph.D. degree are as follows: (1) foreign languages; (2) major and minor courses; (3) supervisory committee for program of study; (4) residence; (5) preliminary examination; (6) the dissertation; (7) the final examination.

**FOREIGN LANGUAGES.** Normally, a reading knowledge of both French and German is required. Such knowledge is evidenced by the passing of an examination conducted by the appropriate language department at Duke University, in cooperation with the student's major department.\*

With the permission of the major department, and with the approval of the Dean of the Graduate School, a student may be allowed to substitute for either of these another language which has a definite relation to the candidate's program of work for the Ph.D. degree. By rule of the Graduate School Faculty, language examinations must be passed before a student takes his preliminary examination. Some departments require the student to master these languages early in the graduate program.

**MAJOR AND MINOR.** The student's program of study necessarily demands substantial concentration on courses in his major department. Enough work must be taken in one department other than the major department to constitute an acceptable minor. Exceptions which permit both the major and minor within the same department are allowed only by the special permission of the Dean of the Graduate School.

**COMMITTEE TO SUPERVISE THE PROGRAM OF STUDY.** Ordinarily, during the student's third semester of graduate work a supervisory committee of five members is appointed by the Dean of the Graduate School. This committee, with the professor who is to direct the student's research serving as chairman, formulates the pro-

\* See page 5 for the dates of these examinations.

gram of study, which is submitted to the Dean of the Graduate School for his approval. Of the five members, one must be from a department (usually the minor) other than the major department. This committee, with occasional necessary changes, serves also as the examining committee for both the preliminary and the final Ph.D. examinations.

**RESIDENCE.** The normal period of residence is not less than three full academic years beyond the B.A. or B.S. degree. A student who already has his A.M. degree may be allowed one year of residence for it, and thus will need to spend a minimum of two additional years in residence.\* In unusual cases, a student who has spent the first two years in residence at Duke University may be allowed to take his third year of residence at some other accredited institution. This can be done only with the approval of the major department and of the Dean of the Graduate School. It should be understood that either the first two years or the last year must be spent in actual residence at Duke. Occasionally, because of undergraduate deficiencies, a student may need to spend additional time beyond the minimum residence in preliminary courses, for which he will not receive residence credit, as a background for certain aspects of his graduate program.

Except in unusual cases, graduate work of fragmentary character taken over a long period of years, or work completed many years before the student becomes a candidate for the degree at Duke University, will not be accepted as satisfying the requirements of residence.

**CREDIT FOR SUMMER WORK.** With the approval of the major department and of the Dean of the Graduate School, credit for a maximum of one year's residence may be granted for work completed in Summer Sessions. A full schedule of summer courses, carried for six weeks, constitutes one-fifth of a year's residence credit.

**PRELIMINARY EXAMINATION.** Near the end of the second academic year of graduate work (or in special cases early in the third year) the student must take his preliminary examination, which ordinarily covers the field of both his major and minor. Conducted by his Supervisory Committee, the examination is oral, or written, or both, as determined by the Committee. *Upon passing this examination, and not until then, the student is accepted as a candidate for the Ph.D. degree.* Transfer students who may already have passed a preliminary examination at another university must nevertheless take the examination at Duke.

**PRIVILEGE OF RE-EXAMINATION.** Should the student fail the preliminary examination, he may apply, with the consent of his Supervisory Committee and of the Dean of the Graduate School, for the privilege of a second examination to be taken no sooner than six

\* See page 42 for rules regarding transfer of graduate credit.



months after the date of the first. Failure on the second examination will render the student ineligible to continue his program for the Ph.D. degree at Duke University.

**THE DISSERTATION.** The dissertation is expected to be a mature and competent piece of writing, embodying the results of significant and original research. It must be, in essence, a contribution to knowledge.

The subject for the dissertation must receive the written approval of both the Director of Graduate Studies of the student's major department and of the professor who directs the dissertation. The title of the dissertation must be filed with the Dean of the Graduate School on or before October 15 preceding the June commencement at which the degree is expected to be conferred.

The dissertation must be completed to the satisfaction of the professor who directs it; and four bound, typewritten copies in approved form must be deposited with the Dean of the Graduate School on or before April 15 if the degree is to be granted at the June commencement following.

As specified by the Graduate Faculty, the dissertation must be typed on the following grades of paper: the original must be green-lined paper of at least sixteen pound weight; the three copies must be on paper of at least thirteen pound weight. Both grades must be of seventy-five per cent rag content.

The form of the title page must be approved by the major department and by the Dean of the Graduate School.

A biographical sketch of the author of the dissertation must be bound in at the end of each copy. Ten copies of a brief summary must be submitted with the dissertation.

After the final examination the original and the first carbon copy of the finally approved dissertation are returned to the Dean of the Graduate School, who deposits them in the University Library.

**DISSERTATION FEE AND PUBLICATION REQUIREMENT.** Not later than May 1 preceding the June commencement when the degree is to be conferred, the candidate must deposit with the Treasurer of the University, a dissertation fee of \$50.00. Should the dissertation be published in a form satisfactory to the professor under whom it was written, and to the Dean of the Graduate School, within a period of three years from the date of the degree, the deposit fee will be returned to the student.

Three copies of each published dissertation must be deposited with the Dean of the Graduate School, as provided by the regulation of the Graduate School Faculty. A suitable abstract or one or more articles in published form may be accepted as satisfying the publica-

tion requirements. Three copies of each of these must be deposited with the Dean of the Graduate School.

If the dissertation is not published within a three-year period under the conditions stated above, the deposit fee is forfeited and is credited to a Special Dissertation Fund, which is used for subsidizing the publication of such dissertations as are recommended by the Graduate School Faculty.

**FINAL EXAMINATION.** The final oral examination shall be primarily on the dissertation. Questions may, however, be asked in the candidate's major field. Normally, one year must elapse between the dates of the preliminary and the final examinations.

If a student fails his final examination, he may be allowed to take it for a second time, but not sooner than six months from the date of his first. Permission to take the second examination must be obtained from the professor who directed the dissertation and from the Dean of the Graduate School. Failure to pass the second examination renders the student ineligible to continue work for the Ph.D. degree at Duke University.

### *The Doctor of Education Degree*

The Doctor of Education is a professional degree and is granted only to those who are, or intend to become, public school administrators.

**ADMISSION.** The candidate for the Ed.D. degree must meet the same requirements for admission to the Graduate School as the candidate for the Ph.D. degree. In addition to these uniform requirements, the candidate for the Ed.D. (1) must have had at least three years of experience in public school work, preferably in school administration; (2) must make a satisfactory mark on a psychological examination, and demonstrate, by examination, his ability to write good English; (3) must present strong letters of appraisal and recommendation from persons well qualified to speak with authority of his abilities; and (4) must present himself, if possible, for a personal interview. The Standing Committee on the Ed.D. degree reserves the right to insist upon an interview.

**RESIDENCE.** The residence requirements for the Ed.D. degree are the same as those for the Ph.D. (see p. 38).

**ACCEPTABLE MARKS ON FIRST YEAR'S WORK.** In order to be considered for candidacy for the Ed.D. degree, the student must have passed all of his course work in the first year of graduate study; on at least 9 semester hours he must have made a grade of "G" or better.

**PRELIMINARY EXAMINATION.** By the end of his second year of residence the candidate for the Ed.D. degree will take a preliminary examination similar in scope to that described for the Ph.D. degree (see above, p. 38). Only after he passes this examination, will he be considered a candidate for the degree.

**DISSERTATION FEE AND PUBLICATION REQUIREMENT.** The dissertation fee and the publication requirement are the same as those for the Ph.D. (see p. 00).

**DISSERTATION AND FINAL EXAMINATION.** The candidate must write a dissertation which demonstrates his ability to investigate and report on some significant phase of public school administration. The details of dissertation presentation, including its defense in a final examination, are the same as those for the Ph.D. degree (see pp. 39-40).

**AWARDING OF THE DEGREE.** After the completion of the formal academic requirements for the Ed.D. degree, the candidate must devote at least one year of apprenticeship in a public school system, under conditions which assure appropriate supervision of the candidate's activities. The Standing Committee on the Ed.D. degree will decide the adequacy of this training. The degree will not be formally awarded until after the successful completion of this apprenticeship.

**PROGRAM OF WORK.** The details of the program of work are determined for each candidate by the Standing Committee for the Ed.D. degree. In general, the first year of work follows the program laid down for the M.Ed. degree. In the second and third years, work in Public School Administration is organized on the basis of seminars, rather than separate courses. This professional, specialized study accounts for about one-third of the course work. The other two-thirds is divided almost equally between the general field of Education and related work.

**MAJOR AND MINOR.** The major field is Public School Administration. The minor, or related work, amounting to at least 24 semester hours, must be taken in Economics, Political Science, and Sociology. Courses necessary for the student's program which lie outside these fields must receive the approval of the Standing Committee.

### *General Regulations*

**SIZE OF CLASSES.** Classes which carry graduate credit are limited in size to twenty-five students. In exceptional cases this regulation may be modified, but only by permission of the Executive Committee of the Graduate School Faculty on the recommendation of the department concerned.

**GRADING OF GRADUATE STUDENTS.** Grades in the Graduate School are as follows: "E," "G," "S," "F," and "Inc." "E" (exceptional) is the highest mark. "G" (good) and "S" (satisfactory) are the remaining passing marks. "F" (failing) is below passing, and "Inc." (incomplete) indicates that some portion of the student's work is missing, for a satisfactory reason, at the time the grades are made out. The professor who gives an "Inc." specifies the date by which time the student must have made up the deficiency. In no case may an extension be granted beyond one calendar year from the date the course ended. No residence credit can be granted for that portion of a student's program which lapses because of incomplete marks.

**CHARGE FOR REQUESTED TRANSCRIPTS.** A student who wishes to transfer his credits from Duke University to another institution is entitled to one free transcript of his record. A fee of one dollar, payable in advance, is charged for each additional copy.

**TRANSFER OF GRADUATE CREDITS.** Credit for graduate course work earned at another institution will be determined only after a student has spent one semester at Duke University. After completing his first semester, the student should file a request that his credits be reviewed and a decision made.

**WITHDRAWAL FROM GRADUATE SCHOOL.** If a student wishes to withdraw from the Graduate School, he should notify both the Director of Graduate Studies in his major department and the Dean of the Graduate School.

**GRADUATE CREDIT EARNED BEFORE A.B. DEGREE IS GRANTED.** Ordinarily no credit for graduate courses earned before a student has been awarded his A.B. or B.S. degree will be allowed. However an undergraduate student at Duke University, who, at the beginning of a semester, lacks no more than 9 semester hours for fulfilling the requirements for the A.B. or B.S. degree, may obtain permission from the Dean of the Graduate School to enroll for graduate courses sufficient to bring his total program to fifteen hours a week. Such graduate courses will be credited toward the A.M. or M.Ed., provided that the student meets the requirements for admission to the Graduate School, and that he is duly registered in the Graduate School at the beginning of that term.

# Awards and Fees



## *Fellowships, Scholarships, and Assistantships*

For the encouragement and financial assistance of graduate students of high character and marked ability, Duke University has established a considerable number of fellowships, scholarships, and assistantships. The stipends for these range from \$470 to \$2,000. Holders of grants pay tuition and other fees regularly required of all graduate students.

Fellows and scholars pay full tuition and fees and are registered for a full schedule of course work and receive full residence credit. Assistants pay four-fifths tuition and fees, are registered for a four-fifths schedule, and receive four-fifths residence credit.

**APPLICATION FOR GRANTS.** Applications for these grants, along with all supporting documents, must be submitted on or before March 1. Notification of awards is made about April 1. Late applications will be considered, should any vacancies occur in the list of appointees. No appointment is made for longer than one academic year.

Further information and application forms may be obtained from the Dean of the Graduate School, Duke University.

Grants offered for 1953-54 are:

**FELLOWSHIPS.** One Angier Duke Memorial Fellowship of \$2,000; twenty-four University Fellowships with stipends ranging from \$1,000 to \$1,800; three Gurney Harriss Kearns Fellowships in Religion of \$1,200 each.

**GRADUATE ASSISTANTSHIPS.** Approximately one hundred appointments as departmental assistants or readers will be available for graduate students. The compensation will usually range from \$800 to \$1,800 depending upon the nature and amount of the work assigned.

**GRADUATE SCHOLARSHIPS.** Twenty-five scholarships with stipends varying from \$470 to \$1,200 each.

**CHARLES W. HARGITT RESEARCH FELLOWSHIP IN ZOOLOGY.** The Charles W. Hargitt Fellowship in Zoology is limited to research in the field of cellular studies. It is primarily for post-doctoral applicants and established investigators on sabbatical leave who desire to engage in full-time research. The stipend will



vary, depending upon previous training and experience, but in general will provide an income equivalent to that of a first year instructor and may be higher in the case of established investigators.

The recipient will have no departmental duties, but space and facilities will be provided.

The fellowship may occasionally be granted to a pre-doctoral applicant in his final year of graduate work who has met all degree requirements other than completion of research, and whose research gives promise of unusual merit.

Appointment is for one year with the possibility of reappointment. Inquiries and applications should be made to Dr. Henry S. Roberts, Department of Zoology, Duke University, Durham, North Carolina.

**FELLOWSHIPS AND GRADUATE SCHOLARSHIPS IN FORESTRY.** Information regarding special fellowships and graduate scholarships in forestry may be obtained from the Dean of the School of Forestry, Duke University, Durham, North Carolina.

**SIGMA XI PRIZE AWARDS.** The Society of Sigma Xi offers each year a prize for a Master's thesis and a prize for a Ph.D. dissertation in the fields of Botany, Chemistry, Forestry, Mathematics, Medicine, Physics, Psychology, and Zoology. The student must be in residence during the academic year in which the prize is awarded. Students holding graduate appointments are eligible to compete, but instructors, part-time instructors, and interns are not eligible. The department concerned makes the nomination. Full particulars may be obtained from the secretary of the chapter. Nominations, recommendations, copies of theses, reports, or other materials must be in the hands of the secretary on or before May 1. All papers should be submitted in duplicate.

### *Tuition, Fees and Expenses*

**GENERAL FEES IN THE ACADEMIC YEAR.** The following table shows the general fees and charges collected from all students. All fees for each semester are due and payable, unless otherwise specified, at the time of registration at the beginning of that semester. No student is admitted to classes until arrangements have been made with the Treasurer of the University for the settlement of fees.

Tuition, per semester.....	\$175.00
General Fee,* per semester.....	60.00
Athletic Fee, not including Federal Tax, Optional, per year, payable in the fall semester .....	10.00
Room-rent—See detailed statement below.	
Special Dissertation Fee, payable by candidates for the Ph.D. degree, on or before the May 1 preceding the granting of the degree.....	50.00

\* General Fees, in lieu of most special charges, include the following fees: Matriculation, Medical, Library, Damage, Commencement, Diploma, and an average of the Laboratory and Materials Fees.

## *Living Accommodations*

Women graduate students occupy Epworth Hall on the Woman's College Campus, which provides facilities for fifty-seven women. There is no dining room in Epworth Hall, but meals may be had in the cafeterias of the Unions. Rooms in Epworth Hall rent for one hundred fifty dollars (\$150.00) each semester for a room for two persons or seventy-five dollars (\$75.00) each occupant each semester and one hundred dollars (\$100.00) for a single room.

The Men's Graduate Center containing bedroom facilities for four hundred men, complete with lounges, study rooms, recreational rooms, post office and dining hall, is available to men of the graduate and professional schools. The rooms are equipped for two persons and the rental charge is one hundred twenty-five dollars (\$125.00) each semester or sixty-two dollars and fifty cents (\$62.50) each person each semester.

Rooms may be reserved by new applicants only if they have been officially accepted for admission by the University and if they have paid a room deposit of twenty-five dollars (\$25.00). The room deposit is refundable, provided application for refund is made sixty days prior to the registration date of the semester for which the room was reserved or within thirty days after official withdrawal from the University Residence Hall.

A resident student, in order to retain his room for the succeeding semester, must make application at the office of the Housing Bureau for confirmation of the reservation. In order to secure a refund of his initial room deposit, he must cancel his room reservation sixty days prior to the registration date of the semester for which the room was reserved. All rooms which have not been reserved on or before an announced date will be considered vacant for the succeeding semester and will be reserved in the order in which applications are made.

Rooms are rented for no shorter period than one semester or, in the case of a medical student, one quarter, unless by special arrangement with the Housing Bureau. A period of occupancy other than a semester or quarter and without special arrangement will be charged at a minimum rate of twenty-five dollars (\$25.00) or at a rate of one dollar each day of occupancy.

The exchange of rooms may be arranged at the Housing Bureau within fifteen days after the official opening of the semester or quarter of the school term. Thereafter a charge of two dollars (\$2.00) may be made. Persons exchanging rooms without the approval of the Housing Bureau will be subject to charges for both rooms.

The authorities of the University do not assume responsibility for the persons selected as roommates. Each student is urged to select the roommate when the room is reserved.

Beds and mattresses (39" x 74"), tables, chairs, dressers, mirrors, and window shades are furnished by the University. The student supplies linens, blankets and pillows. Rugs, if desired, are not to exceed fifty (50) square feet in size.

Regulations governing the occupancy of rooms will be supplied directly from the Housing Bureau when room reservations are made. Occupants are expected to abide by these regulations.

**BOARD.** Food service on both the Woman's College Campus and the West Campus is cafeteria style. The cost of meals approximates \$1.75 to \$2.25 per day depending upon the need and taste of the individual. The dining facilities on the West Campus include three cafeterias with multiple choice menus and, in addition, the Oak Room, where full meals and *a la carte* items are served. The Men's Graduate Center has a cafeteria open at meal hours, and a coffee lounge which is open until 11:00 P.M. The prices are the same as in the West Campus Union.

**ESTIMATED EXPENSES IN THE ACADEMIC YEAR.** The necessary expenses of a graduate student are moderate. The University dormitories and Unions provide comfortable and wholesome living conditions at a minimum cost. Incidental expenses for recreation, traveling, clothes, and other items naturally depend on the tastes and habits of the individual. The table below lists the necessary college expenses for one year for a full program of work:

	<i>Low</i>	<i>Moderate</i>	<i>Liberal</i>
Tuition .....	\$ 350.00	\$ 350.00	\$ 350.00
General Fee .....	120.00	120.00	120.00
Room-rent .....	125.00	150.00	200.00
Board .....	400.00	450.00	500.00
Laundry .....	25.00	30.00	35.00
Books .....	30.00	40.00	50.00
	<u>\$1,050.00</u>	<u>\$1,140.00</u>	<u>\$1,255.00</u>

Due to rising costs it may be necessary to consider some readjustment of charges. In the event of an adjustment applicants will be notified.

**PAYMENTS TO HOLDERS OF GRANTS.** Payments of stipends to holders of grants are made by the University Treasurer in four equal installments. Arrangements may be made to pro-rate tuition charges on this same basis. Payments are made to the student at approximately the middle and end of each semester.

**SPECIAL CHARGES FOR TEACHERS AND OTHERS.** In order to assist North Carolina teachers in their professional preparation, Duke University grants a special tuition rate to members of the faculties of neighboring public schools and colleges, currently engaged in full-time teaching while taking courses in the Graduate School of Arts and Sciences.

Other persons eligible for these special fees include full-time employees of Duke University who are paid on a monthly basis throughout the year, ministers of neighboring churches, and wives of Duke faculty members. In no instance do these reduced rates apply to teachers and ministers while on leave of absence.

Such persons may enroll for one or two courses (in no case totalling more than 7 semester hours per semester) upon the payment of a fee of \$5.00 for registration for each semester and a tuition fee of \$5.25 per semester hour of credit.

These special fees do not apply to the holders of fellowships, scholarships, or assistantships, or to part-time instructors.

The student must meet the same admission standards required of all graduate students (see above, p. 31). No more than two-fifths residence credit per year may be earned under this reduced-tuition arrangement.

# Facilities for Graduate Study



## *The Libraries*

The University Libraries contained 1,085,000 volumes on July 1, 1952. In addition to the collections in the General Library, there are eight school and departmental libraries: Divinity, 58,000 volumes; Engineering, 18,500 volumes; Law, 98,000 volumes; Medical, 53,000 volumes; Woman's College, 93,000 volumes; Biology-Forestry, 48,000 volumes; Chemistry, 16,000 volumes; Mathematics-Physics, 15,500 volumes. In 1951-52 47,722 volumes were added; 3,950 periodicals and 69 newspapers are received currently.

The General Library building, which was doubled in size in 1949, incorporates many modern arrangements for the preservation of the collections and for the convenience of the research scholar. Book stacks, storage areas, and quarters for rare books and manuscripts are air-conditioned. In the stacks, 250 carrells are available to graduate students as places of study, and a large reading room on the first floor of the building is reserved for graduate students. Upon application, graduate students may receive permit cards entitling them to use of the stacks.

A division of photographic services, with the most modern cameras and other equipment for microfilming or other photographic reproduction of printed and manuscript materials, provides a battery of reading machines to serve the Library's large collection of microfilms of rare books, periodicals, and newspapers.

The extensive resources of the Library for research students may be suggested by the following special collections:

THE TRENT COLLECTION OF WALT WHITMAN, containing the first and all other important early editions or issues of *Leaves of Grass*; books and articles of Whitman biography and criticism; nearly 300 manuscripts and 400 letters; and pictures, sheet music and other miscellanea.

THE GEORGE WASHINGTON FLOWERS COLLECTION of books, manuscripts, pamphlets, and newspaper on all phases of Southern history.

THE ARENTS COLLECTION of several hundred volumes relating to the culture and production of tobacco and the manufacture and distribution of tobacco products.



THE JAMES A. THOMAS COLLECTION of books on Chinese history and culture.

THE GUIDO MAZZONI LIBRARY, a collection of approximately 23,000 volumes and 67,000 pamphlets covering the whole range of Italian literature, with special strength in the nineteenth century.

THE GUSTAVE LANSON LIBRARY of 12,000 books and monographs on French literature.

LATIN-AMERICAN COLLECTIONS, built around a special Peruvian library of 7,000 books and manuscripts, a Brazilian library of several thousand volumes, and an Ecuadorian library of 2,000 volumes, supplemented by strong collections of the public documents of these and other Latin-American countries.

THE ROBERTSON LIBRARY of Philippiniana.

THE FRANK C. BROWN FOLKLORE COLLECTION, consisting of about 38,000 manuscript pieces, 1,400 vocal recordings, and 650 musical scores of North Carolina folklore.

THE STRISOWER LIBRARY of International Law, numbering about 5,000 volumes, with many rare books and periodical files.

THE HOLL CHURCH HISTORY LIBRARY, dealing primarily with the period of the Reformation.

COLLECTIONS IN ENGLISH AND AMERICAN LITERATURE, where emphasis has been placed principally on the eighteenth and nineteenth centuries, with collections of Swinburne, Tennyson, Rossetti, and Bryant, significant groups of annotated copies and first editions of Coleridge and Byron, the Carroll Wilson collection of Emerson, some 5,000 items of eighteenth-century English poetry and prose, and the Paul Hamilton Hayne library of American literature.

In addition to these and other special collections, the Libraries contain excellent files of United States federal and state documents, public documents of many European and Latin-American countries, and publications of European academies and learned societies. The newspaper collection, with 13,000 volumes and 3,200 reels of microfilms, has several long eighteenth-century files, strong holdings of nineteenth-century New England papers, and of ante-Bellum and Civil War papers from North Carolina, South Carolina, and Virginia; there are also many European and Latin-American papers. The manuscript collection of more than 1,500,000 items is particularly strong in all phases of the history, politics, and social and economic life of the South Atlantic region, though it includes also significant papers in English and American literature, and several notable medieval manuscripts in both Greek and Latin.

**HISPANIC STUDIES PROGRAM.** The Graduate School offers an inter-departmental program of Hispanic studies leading to the A.M. and Ph.D. degrees. Students may write their theses and take their degrees in history, economics, political science, sociology, and Hispanic languages and literatures. The purpose of the program is to make possible desirable combinations of courses on the Hispanic world in these related disciplines and to bring to bear more strength of the faculty upon the training of a single candidate. This may be achieved through a judicious use of minors or by such special arrangements as may from time to time become necessary.

The Duke University Library holdings have been built up to facilitate graduate work and research in Hispanic-American cultural history, inter-American relations, economic history, politics, and Spanish-American literature. These collections were augmented by a grant from the Division of Humanities of the Rockefeller Foundation during the period 1940-1946 and are being constantly enlarged through liberal appropriation of University funds.

### *Science Laboratories*

**BOTANICAL AND ZOOLOGICAL LABORATORIES.** Facilities for graduate study in the Department of Botany and Zoology are for the most part concentrated in the Biology Building on the West Campus. In addition to well-equipped laboratories for teaching and research in the various fields of botany and zoology, special facilities, such as animal rooms, greenhouses, darkrooms, a small shop, a refrigerated room, and air-conditioned rooms, are available.

The Botany Herbarium, containing over 135,000 specimens, is particularly strong in material from the Southeast and includes notable collections of mosses, ferns, and grasses. The Biology-Forestry Library contains an outstanding collection of books and serials, including most of the important American and foreign periodicals, in botany, forestry, zoology and related fields.

Unique assets for teaching and research are the Sarah P. Duke Gardens, conveniently accessible on the West Campus; the Duke Forest, comprising some eight thousand acres of woodland adjacent to the West Campus; and the Duke University Marine Laboratory at Beaufort, North Carolina. The marine station is exceptionally well located for the study of animal and plant life in the ocean and in the coastal plain area. Graduate courses of instruction are given at the Marine Laboratory during the summer months; research facilities are available throughout the year.

Scholarships for advanced study during the summer months are maintained at the Highlands Laboratory, Highlands, North Carolina, and at the Marine Biological Laboratory, Woods Hole, Massachusetts.

Requests for information concerning the scholarship at the Highlands Laboratory should be addressed to the Botany Department, those concerning scholarships at Woods Hole to the Zoology Department.

**PHYSICAL LABORATORIES.** A new and completely modern Physics building with 62,500 square feet of floor space, has recently been completed.

In addition to the lecture halls and the elementary laboratories, the building includes special laboratories for work in electrical measurements, electronics, microwaves, optics, atomic and nuclear physics, low temperature physics, and mechanics, and a new laboratory for training in radioactive measurements. Special equipment includes: a 21-foot concave grating and other instruments for visible, ultraviolet, infrared, and Raman spectra; instruments for research in microwaves and microwave spectroscopy; crystal counters, proportional counters, ion chambers for use in cosmic ray and nuclear research; a four-million volt Van de Graaff accelerator, and associated equipment for nuclear physics research; a helium liquefier, and other cryogenic equipment.

The physics building contains a departmental library, a liquid air plant, and shop staffed by four instrument mechanics, two electronic mechanics, and a glass blower.

**CHEMICAL LABORATORIES.** Graduate work in chemistry is carried on in a modern building with a floor area of about 57,000 square feet. Of this total space a large proportion is available for research and advanced teaching. A number of specially designed rooms are available for present or future research, such as a photographic room, constant temperature room, and rooms equipped for dielectric constant and infrared, visible and ultraviolet spectrophotometric measurements.

A glassblowing room and a well-equipped shop, operated by a competent mechanic, provide facilities for the construction of special apparatus and for the repair and maintenance of instruments.

A departmental library located in the building provides reference material for all ordinary needs.

**PSYCHOLOGY LABORATORIES.** Graduate work in psychology is carried on in two adjacent buildings providing about 16,000 square feet of floor space. Twenty-two rooms are devoted to research. In addition to general research space, a number of rooms are specifically equipped for research in perception, visual processes, and human and animal learning. Additional special apparatus includes automatic computation equipment for research in test construction. A departmental shop, with a competent technician in charge, is maintained for the design and construction of special apparatus.

Several hospitals and clinics which cooperate with the department,

and a nursery school, which is maintained in the laboratory, provide additional facilities for research in clinical psychology.

**MEDICAL SCHOOL.** In the School of Medicine elaborate facilities are provided for post-graduate research in the various branches of medical science. The Departments of Anatomy, Bacteriology, Mycology, and Immunology, Biochemistry and Nutrition, and Physiology and Pharmacology offer certain courses and research facilities to students in the Graduate School of Arts and Sciences. The use of the Duke Hospital Library is available to all graduate students.

### *Oak Ridge Institute of Nuclear Studies*

Duke University is one of the sponsoring universities of the Oak Ridge Institute of Nuclear Studies located at Oak Ridge, Tennessee. Through this cooperative association with the Institute, the graduate research program has at its disposal all the facilities of the National Laboratories in Oak Ridge and of the research staffs of these laboratories.

### *Duke Forest*

The Duke Forest consists of approximately 7,600 acres of land, most of which is adjacent and easily accessible to the University campus. Situated in the lower Piedmont region and composed of second-growth shortleaf pine, loblolly pine, and hardwoods, the Forest is representative of the various types of timber growth and soils found throughout the region. Through placing the Forest under intensive management for forestry purposes, substantial progress has been made in developing the educational work and research in forestry.

The proximity of the Forest to the laboratories, greenhouses, and library facilities of the University provides an excellent opportunity for advanced study and research in forestry. Research, particularly in the fields of silvics, forest soils, silviculture, forest management, properties of wood, forest-tree physiology, forest entomology, and forest pathology, is well under way. Several members of the Botany and Zoology staffs are also engaged in research in the Duke Forest.

### *Cooperative Programs with the University of North Carolina*

**INTERCHANGE OF REGISTRATION.** Under a plan of co-operation between the greater University of North Carolina and Duke University, students regularly enrolled in the Graduate School of the greater University during the regular academic year, and paying full

fees to that institution, may be admitted to courses in the Graduate School of Duke University upon payment of a nominal registration fee of two dollars and of any other special fees regularly required of all students. Under the same arrangements, students in the Graduate School of Duke University may be admitted to course work at the greater University of North Carolina.

**LIBRARY EXCHANGE.** Students of both the University of North Carolina and Duke University are granted certain library privileges in the respective libraries of each University. Books unavailable in one library may be procured at short notice through an inter-library loan service.

### *Research and Publication*

The several departments of the University are devoted to research investigation as well as to instruction. Since the University exists partly for the promotion and diffusion of knowledge, attention is rightly placed, in the Graduate School, on research activities.

In furtherance of the University's obligation to promote and diffuse knowledge, the President annually appoints a University Council on Research, which receives applications from members of the various faculties for subsidies in support of research. Vigorous and forward-looking policies of this Research Council have initiated and encouraged the completion of many substantial and important research projects.

The Duke University Press takes its place as a significant agency in the diffusion of knowledge. Created in 1926, as a successor to the Trinity College Press, the Duke University Press immediately revived the *Hispanic-American Historical Review*, which had been founded and published from 1918 to 1922 by a group of scholars interested in Hispanic America. In 1929 *American Literature* was begun with the cooperation of the American Literature Group of the Modern Language Association. This journal was followed in 1931 by *Ecological Monographs*, and in 1932, *Character and Personality* (since 1945 the *Journal of Personality*). In 1935 the Press began the publication of the *Duke Mathematical Journal*; in 1937, the *Journal of Parapsychology*. The Law School of Duke University publishes *Law and Contemporary Problems*.

The Press, since its organization, has published more than two hundred volumes, and has thus made public the fruits of scholarly research of the Duke faculty and of scholars elsewhere. In the broadest sense, the policy of the Press is to make available to the public any scholarly work that merits publication though special attention is given to works in domains of knowledge cultivated by the University and to works pertaining to the region south of the Potomac.



## *Appointments Office*

Duke University maintains an active appointments office which has steadily been placing students in teaching and industrial positions. The services of this office are available without charge to graduate students. Those who are interested in securing employment through the Appointments Office, or those who wish to have available for their own use in securing employment a complete file containing their academic record and pertinent recommendations, should register in this office.

## *Foreign Students*

It is the policy of the Graduate School to admit qualified foreign students to course work and in many instances to candidacy for a degree. In making application the student should follow the same procedures as are required of all other graduate students.

The foreign student whose native language is not English must submit, with his application, a statement by a qualified official that the applicant can read, write, speak, and understand English well enough to pursue a program of graduate study. If the applicant is deficient in this respect he must remove his deficiency before he can be accepted in the Graduate School. He must also present a statement certified by a responsible official that his finances are sufficient to maintain him during his stay at Duke University. Unless specific arrangements have been made for a scholarship, the student must pay the regular fees.

## *Graduate Study in the Summer Session*

The Summer Session of Duke University is divided into two terms of six weeks each. In 1953, the first term begins on June 10 and ends on July 18. The second term begins on July 21 and ends on August 28.

Graduate students who wish to work toward advanced degrees in the Summer Session, particularly in Chemistry, Economics, Education, English, History, Mathematics, Religion, Sociology, Spanish, and Zoology will find a selection of courses offered by members of the Duke faculty and by visiting professors. Other departments ordinarily offering work leading to the A.M. degree are Botany, Political Science, and Psychology. Thesis research for advanced graduate students is available also in other departments, such as Botany, Forestry, and Physics.

Requirements for admission to the Graduate School are detailed above, p. 31. Students who wish to be admitted to the Graduate School for work in the Summer Session, should make application to

the Dean of the Graduate School, as well as to the Director of the Summer Session, and should return the completed application, with supporting documents, before June 1, for admission to the first term, and before July 10, for admission to the second term.

REGULATIONS REGARDING SUMMER WORK. (a) No graduate student may register for more than six semester hours of credit in one Summer Session term of six weeks. (b) All of the work required for either the A.M. or M.Ed. degree must be completed within six years of the date of beginning. No work completed earlier than this time limit can be accepted either for course or residence credit. (c) Not more than one year of summer work can be accepted toward the residence requirements for the Ph.D. or Ed.D. degrees. See p. 38 for a definition of a year's residence credit earned in Summer Sessions.

A Summer Session Bulletin containing information about graduate courses may be obtained by addressing a request to the DIRECTOR OF THE SUMMER SESSION, Duke University, Durham, N. C.

# Courses of Instruction



*Most courses listed in this Bulletin are given on the West Campus. The letter (E) following the description means that the course is offered on the East Campus. In general, courses with odd numbers are offered in the first semester, those with even numbers in the second semester. The courses listed under the headnote to the several departments are those planned at the date of printing the Bulletin. Occasional changes may later be necessary.*

## AESTHETICS, ART, AND MUSIC

ASSOCIATE PROFESSOR MARKMAN

No graduate degree is offered in this department, but the following courses are suggested as possible minors for students majoring in history, literature, philosophy, religion, psychology, or sociology, or in any other interested departments. In 1953-54 the courses planned are 215 and 216.

215. RELIGIOUS ART OF THE ANCIENT NEAR EAST.—The development of art, particularly architecture and sculpture, as the material expression of religious ideas in Egypt, Mesopotamia and in part Syria and Palestine to the Persian conquest. 3 s.h. ASSOCIATE PROFESSOR MARKMAN

216. RELIGIOUS ART OF THE CLASSICAL WORLD.—The religious art, particularly architecture and sculpture, of Greece and Rome with special emphasis on the monuments in the Near East. 3 s.h. ASSOCIATE PROFESSOR MARKMAN

217. AEGEAN ART.—A study of the problems of Aegean art as the forerunner of Greek art and in relation to the contemporary civilizations of the eastern Mediterranean world. Open to graduate students, seniors and, after consultation with the instructor, to juniors. 3 s.h. ASSOCIATE PROFESSOR MARKMAN

218. EARLY GREEK ART.—A study of the problems of the origin and development of Greek art in the geometric period to the end of the archaic. Open to graduate students, seniors and, after consultation with the instructor, to juniors. 3 s.h. ASSOCIATE PROFESSOR MARKMAN

## DIVISION OF ANCIENT LANGUAGES AND LITERATURE

PROFESSORS CLARK, ROGERS, AND STINESPRING; ASSOCIATE PROFESSORS ROSE AND TRUESDALE;  
ASSISTANT PROFESSORS BROWNLEE AND WAY

### GREEK

In order to undertake graduate study in Greek a student should have had four years' (24 semester hours) study of the Greek language. A student of demonstrated ability in Greek may, on occasion, be admitted with fewer course credits.

Three types of courses are offered for graduate study: (1) Courses devoted to extensive reading in the six divisions of classical Greek literature; (2) courses on Greek archaeology, dialects, and inscriptions; (3) advanced seminars on specific authors or groups of authors. The courses offered rotate from year to year, usually in a fixed sequence. For 1953-54 the courses planned are 243, 244, 257, 307-308.

FOR SENIORS AND GRADUATES

201-202. GREEK TRAGEDY.—6 s.h.

ASSOCIATE PROFESSOR TRUESDALE

203-204. HOMER.—*Odyssey*. PINDAR AND BACCHYLIDES. 6 s.h.

ASSOCIATE PROFESSOR TRUESDALE

205-206. GREEK HISTORIANS.—6 s.h.

ASSOCIATE PROFESSOR ROSE

207-208. GREEK ORATORS.—6 s.h.

ASSISTANT PROFESSOR WAY

209-210. PLATO.—*Symposium*, *Protagoras*, and parts of the *Republic*. 6 s.h.

ASSISTANT PROFESSOR WAY

211-212. ARISTOPHANES.—6 s.h.

ASSOCIATE PROFESSOR TRUESDALE

243. ATHENIAN TOPOGRAPHY.—The topography and monuments of ancient Athens. 3 s.h.

ASSISTANT PROFESSOR WAY

244. GREEK EPIGRAPHY.—Lectures on the history of the alphabet and the development of the local Greek alphabets, followed by extensive reading of inscriptional texts in facsimile. 3 s.h.

ASSISTANT PROFESSOR WAY

245. GREEK DIALECTS.—A linguistic study of transliterated inscriptions illustrative of the major Greek dialects. The interrelations of the dialectal forms are examined, with reference, where possible, to their origin in protoethnic Greek. 3 s.h.

ASSISTANT PROFESSOR WAY

246. GREEK HISTORICAL INSCRIPTIONS.—The more valuable historical inscriptions are read in chronological order and interpreted in their general bearing upon the course of Greek history. 3 s.h.

ASSISTANT PROFESSOR WAY

247-248. GREEK ARCHAEOLOGY.—Advanced course in the general field for seniors and graduates, comprising architecture, sculpture, vases, and the minor arts. 6 s.h.

ASSISTANT PROFESSOR WAY

(Of the courses numbered from 243 to 248, only two semester-courses are offered each year.)

257. SOCIAL AND CULTURAL HISTORY OF THE HELLENISTIC WORLD FROM ALEXANDER TO AUGUSTUS.—Lectures, readings, and discussions. This course will not be separately credited without the sequel, Latin 258. 3 s.h.

PROFESSOR ROGERS

#### FOR GRADUATES

The more advanced work of the graduate department is done in the seminar. One author or group of authors forms the center of study each year. Seminars are offered in ARISTOPHANES (301-302), THE GREEK HISTORIANS (303-304), THE ATTIC ORATORS (305-306), and THE GREEK TRAGIC POETS (307-308). These run through a cycle of four years.

*Graduate students of Duke University may attend the American School of Classical Studies in Athens, Greece, without charge for tuition, and they are eligible to compete for the fellowships that are offered annually by the School. These consist of two fellowships in Greek archaeology, and one in the language, literature, and history of ancient Greece, each with a stipend of \$2,000. They are awarded mainly on the basis of examinations held in the beginning of February of each year.*

#### LATIN AND ROMAN STUDIES

The student who wishes to enter graduate courses should present as a prerequisite, at least 18 semester hours of credit in Latin beyond the four-year high school course or its college equivalent. He should also have an elementary knowledge of French and German.

The courses planned for 1953-54 are 211-212, 258, 391-392.

#### FOR SENIORS AND GRADUATES

201. ROMAN FICTION.

202. LATIN CHRISTIAN WRITERS.

203-204. ROMAN EPIC: ENNIUS, VERGIL, MANILIUS, LUCAN, FLACCUS, STATIUS, SILIUS.—A study of this literary genre, and its development by Roman writers; extensive reading of the Roman epics. 6 s.h. (E)

205-206. ROMAN DRAMA: PLAUTUS, TERENCE, SENECA.—A rapid reading course in which five plays of Plautus, three of Terence, and two of Seneca are studied. 6 s.h. (E)

207-208. ROMAN PHILOSOPHY.

211-212. ROMAN ORATORY.—A survey of the history of Roman oratory, centering about the *Brutus* of Cicero and Tacitus' *Dialogus*. 6 s.h. PROFESSOR ROGERS

258. SOCIAL AND CULTURAL HISTORY OF THE GRAECO-ROMAN WORLD.—The Roman Empire as the trustee of Hellenism and Christianity, and its own original contributions to modern civilization; lectures, readings, and discussions. This course continues Greek 257 and will not be separately credited. 3 s.h. PROFESSOR ROGERS

281-282. ROMAN HISTORICAL LITERATURE.

283-284. ROMAN LAW.—Readings in the original sources with parallel study of modern exposition of the Roman legal system. 6 s.h. PROFESSOR ROGERS

#### FOR GRADUATES

309-310. SIGHT READING AND COMPOSITION.—Comprehensive reading in special fields of Roman Literature not included in other courses, with which the writing of Latin will be correlated. 6 s.h. ASSOCIATE PROFESSOR ROSE

311-312. LATIN EPIGRAPHY.—Introduction to Latin epigraphy, with considerable practice in reading short inscriptions, *first semester*; and this is followed by a study of important historical inscriptions including the Monumentum Ancyranum, *second semester*. 6 s.h. PROFESSOR ROGERS

SEMINARS: Various authors or historical periods are selected from year to year as a basis for training in criticism and research. Seminars are offered in the following: CATULLUS (301-302), ROMAN HISTORIANS (331-332), ROMAN PROVINCIAL ADMINISTRATION (341-342), THE REIGN OF TIBERIUS (343-344), MARTIAL (351-352), HORACE (361-362), LUCRETIUS (371-372), and CICERO'S PUBLIC CAREER (391-392).

#### LINGUISTICS

##### FOR GRADUATES

375-376. GREEK AND LATIN LINGUISTICS.—A comparative study of the development of forms and inflections in Greek and Latin. 6 s.h. ASSOCIATE PROFESSOR ROSE

385-386. ELEMENTARY SANSKRIT.—An introductory course to the classical language and literature. The linguistic importance of Sanskrit will be stressed, especially with reference to Greek, Latin, and Germanic. 6 s.h. ASSOCIATE PROFESSOR ROSE

#### SEMITICS

The courses planned for 1953-54 are 201-202, 207-208, 309.

##### FOR SENIORS AND GRADUATES

201-202. FIRST HEBREW.—The principles and structure of the Hebrew language, with translations of selected Old Testament narratives. 6 s.h. PROFESSOR STINESPRING

205-206. ELEMENTARY ARABIC.—Introduction to the classical language and literature, with some attention to the modern colloquial idiom. 6 s.h. PROFESSOR STINESPRING

207-208. SECOND HEBREW.—Samuel or Kings the first semester; Isaiah the second. 6 s.h. ASSISTANT PROFESSOR BROWNLEE

##### FOR GRADUATES

304. ARAMAIC.—A study of the Aramaic portions of the Old Testament and selected passages from the Targums, Midrashes, and Talmuds. 3 s.h. PROFESSOR STINESPRING



305. THIRD HEBREW.—A study of late Hebrew prose, with readings from Chronicles, Ecclesiastes, and the Mishnah. Hours to be arranged. 3 s.h.

PROFESSOR STINESPRING

307. SYRIAC.—A study of the script and grammar, with readings from the Syriac New Testament and other early Christian documents. Some knowledge of Hebrew and Aramaic is prerequisite. 3 s.h.

PROFESSOR STINESPRING

309. HISTORY OF THE ANCIENT NEAR EAST.—A survey of the early civilizations of Egypt, Palestine, Syria, and Mesopotamia in the light of Biblical archaeology. 3 s.h.

PROFESSOR STINESPRING

#### RELATED COURSES IN OTHER DEPARTMENTS

Philosophy 217, Religion 217, 218, 220, 313, 316, 318.

Under the terms of a co-operative agreement graduate students of Duke University may, with the approval of the chairman of their major department, take any graduate course offered by the Departments of Greek and Latin of the University of North Carolina by the payment of a nominal fee. A list of these courses will be sent upon request.

## BOTANY

PROFESSOR BLOMQUIST, CHAIRMAN—203 BIOLOGY BUILDING; PROFESSOR KRAMER, DIRECTOR OF GRADUATE STUDIES—04 BIOLOGY BUILDING; PROFESSORS HARRAR, OOSTING, AND WOLF; ASSOCIATE PROFESSORS ANDERSON, BILLINGS, NAYLOR, AND PERRY; ASSISTANT PROFESSOR WARREN

Graduate work in the Department of Botany is offered leading to the A.M. and Ph.D. degrees. Before undertaking graduate study in Botany a student should have had in his undergraduate program at least 12 semester hours of Botany beyond an elementary course, and related work in biological sciences. Some work in Chemistry and Physics will be desirable; and for some phases of botanical study, a necessity. The student's graduate program is planned to provide a broad basic training in the various fields of Botany, plus intensive specialization in the field of the research problem.

The courses planned for 1953-54 are 203, 221, 222, 224, 225-226, 253, 254, 255, 257, 305, 359-360, 397-398.

#### FOR SENIORS AND GRADUATES

202. GENETICS.—The principles of heredity, their cytological basis, and their bearing on other fields of biology. Laboratory work involves experimental breeding of the fruit fly and interpretation of data from the breeding of plants. Offered in alternate years. Prerequisites: one year of botany, zoology, or equivalent, and college algebra. 4 s.h.

ASSOCIATE PROFESSOR PERRY

203. PLANT CYTOLOGY.—A study of the structure and organization of plant cells in relation to growth, reproduction, and especially heredity. Offered in alternate years. Prerequisite: one year of botany. 4 s.h.

ASSOCIATE PROFESSOR ANDERSON

204. ADVANCED PLANT ANATOMY.—The structure of vegetative and reproductive organs of seed plants. Physiological and ecological implications of structure are stressed. Offered in alternate years. Prerequisite: Botany 55 or equivalent. 4 s.h.

216. BOTANICAL MICROTECHNIQUE.—Studies in methods of preparing temporary and permanent microscopical slides; theory of staining; the use of the microscope, especially microscopical measurements, drawing, and photomicrography; botanical photography, and lantern slides. Prerequisite: two semesters of botany. 4 s.h.

ASSOCIATE PROFESSOR ANDERSON

221. STRUCTURE AND CLASSIFICATION OF FUNGI.—Prerequisite: two semesters of botany. 4 s.h.

PROFESSOR WOLF

222. PHYSIOLOGY AND ECOLOGY OF FUNGI.—Prerequisite: Botany 221 or equivalent. 4 s.h.

PROFESSOR WOLF

225-226. SPECIAL PROBLEMS.—Students with adequate training may do special work in the following fields. Credits to be arranged.

(a) BACTERIOLOGY, MYCOLOGY, AND PLANT PATHOLOGY.

PROFESSOR WOLF AND ASSISTANT PROFESSOR WARREN

(b) CYTOLOGY.

ASSOCIATE PROFESSOR ANDERSON

(c) ECOLOGY.

PROFESSOR OOSTING AND ASSOCIATE PROFESSOR BILLINGS

(d) GENETICS.

ASSOCIATE PROFESSOR PERRY

(e) MORPHOLOGY AND ANATOMY OF HIGHER PLANTS.

PROFESSORS HARRAR AND OOSTING

(f) MORPHOLOGY AND TAXONOMY OF LOWER GROUPS.

PROFESSOR BLOMQUIST AND ASSOCIATE PROFESSOR ANDERSON

(g) PHYSIOLOGY.

PROFESSOR KRAMER AND ASSOCIATE PROFESSOR NAYLOR

(i) TAXONOMY OF HIGHER GROUPS.

PROFESSOR BLOMQUIST

252. ADVANCED PLANT PHYSIOLOGY.—The physicochemical processes and conditions underlying the physiological processes of plants. Prerequisite: Botany 151 or equivalent; organic chemistry recommended. 3 s.h.

ASSOCIATE PROFESSOR NAYLOR

253. PHYSIOLOGY OF GROWTH AND DEVELOPMENT.—Consideration of the internal factors and processes of new protoplasm and its differentiation at the cellular, tissue, and organ level in plants. Prerequisites: Botany 151 or equivalent; Organic Chemistry recommended. 3 s.h.

ASSOCIATE PROFESSOR NAYLOR

254. PLANT WATER RELATIONS.—A study of factors affecting the availability of water, its absorption and use in plants, and the effects of water deficits on plant processes. Assigned readings, reports, and lectures. Prerequisite: Botany 151 or equivalent. 3 s.h.

PROFESSOR KRAMER

255. ADVANCED TAXONOMY.—A study of the historical background of plant taxonomy, modern concepts and systems of classifications, nomenclatorial problems, and the taxonomy of specialized groups. Prerequisite: two years of botany, including Botany 52 or equivalent. 4 s.h.

PROFESSOR BLOMQUIST

256. COMMUNITY ANALYSIS AND CLASSIFICATION.—The development of concepts and methods in synecology and their present application to the study of plant communities. Prerequisite: Botany 156 or equivalent. 3 s.h.

PROFESSOR OOSTING

257. PRINCIPLES OF PLANT DISTRIBUTION.—Interpretation of the floristic and ecological plant geography of the world's vegetation. Prerequisite: Botany 156 or equivalent. 3 s.h.

ASSOCIATE PROFESSOR BILLINGS

259. ENVIRONMENTAL MEASUREMENTS.—Methods of obtaining and evaluating climatological data for ecological purposes with special attention to instrumentation and microclimate. Prerequisite: Botany 156 or equivalent. 3 s.h.

ASSOCIATE PROFESSOR BILLINGS

305. VEGETATION OF NORTH AMERICA.—Distribution and limits of the major plant communities, a study in ecological plant geography. Prerequisite: Botany 156 or equivalent. 3 s.h.

PROFESSOR OOSTING

310. STRUCTURE AND CLASSIFICATION OF BRYOPHYTES AND PTERIDOPHYTES.—The morphological and systematic characteristics of mosses, liverworts, ferns, and fern allies. 4 s.h.

PROFESSOR BLOMQUIST

311. STRUCTURE AND CLASSIFICATION OF ALGAE.—The morphological and ecological characteristics of the common freshwater and marine species and the principles underlying their classification. Collecting, identification, and the making of permanent microscopical preparations. 4 s.h.

PROFESSOR BLOMQUIST

341. METHODS IN PLANT PHYSIOLOGY.—The theory and use of apparatus and methods in the physiological research. 3 s.h.

PROFESSOR KRAMER AND ASSOCIATE PROFESSOR NAYLOR

359-360. RESEARCH IN BOTANY.—Individual investigation in the various fields of botany. Credits to be arranged.

PROFESSORS BLOMQUIST, HARRAR, KRAMER, OOSTING, WOLF;  
ASSOCIATE PROFESSORS ANDERSON, BILLINGS, NAYLOR, AND PERRY

397-398. GENERAL BOTANICAL SEMINAR.—One hour per week throughout the year. Required of all graduates majoring in botany. 2 s.h.

PROFESSORS BLOMQUIST, HARRAR, KRAMER, OOSTING, WOLF; ASSOCIATE  
PROFESSORS ANDERSON, BILLINGS, NAYLOR, AND PERRY; AND ASSISTANT  
PROFESSOR WARREN

### FOREST BOTANY

FOR SENIORS AND GRADUATES

224. FOREST PATHOLOGY.—Special reference to diseases of forest trees. Prerequisites: Botany 1 and 2. 4 s.h. PROFESSOR WOLF

253. DENDROLOGY.—Nomenclature, classification, and identification of woody plants with special reference to species indigenous to southeastern United States and other important forest regions of temperate North America. Laboratory and field work. Prerequisite: one year of botany. 3 s.h. PROFESSOR HARRAR

### RELATED COURSES IN OTHER DEPARTMENTS

These related courses may be counted toward a major in botany: Forestry 257; Zoology 341.

## CHEMISTRY

PROFESSOR HOBBS, CHAIRMAN—022 CHEMISTRY BUILDING; PROFESSOR VOSBURGH, DIRECTOR OF GRADUATE STUDIES—211 CHEMISTRY BUILDING; PROFESSORS BIGELOW, GLOCKLER (VISITING LECTURER), GROSS, HAUSER, HILL, LONDON, AND SAYLOR; ASSOCIATE PROFESSORS BRADSHAW AND BROWN; ASSISTANT PROFESSOR STROBEL

In the Department of Chemistry graduate work is offered leading to the A.M. and Ph.D. degrees. Before undertaking a graduate program in Chemistry, a student should have taken an undergraduate major in Chemistry along with related work in mathematics and physics.

Graduate courses in the department are designed to provide a broad basic training in the fields of inorganic, organic, analytical, and physical chemistry. An important requirement for the Ph.D. degree is the successful completion, under the direction of a member of the Staff, of a research program leading to the solution of an original problem. The choice of the research problem, for either the A.M. or the Ph.D. degrees, will determine the field of advanced specialization.

For 1953-54 the courses planned are 206, 215-216, 233, 234, 251, 252, 253-254, 261-262, 267-268, 271, 273-274, 275-276, 303, 304, and 351-352.

### FOR SENIORS AND GRADUATES

206. ELEMENTS OF THEORETICAL CHEMISTRY.—A course in the general principles of physical chemistry for students who do not present credit in calculus. Credit is not given for both 206 and 261-262. Three recitations and three laboratory hours. Prerequisites: Chemistry 70, 151-152, Physics 51-52 or 1-2 and Mathematics 6 s.h. With the permission of the Director of Graduate Studies, graduate students from other departments may offer other advanced science courses in place of some of these prerequisites. 4 s.h. PROFESSORS SAYLOR AND HOBBS

215-216. ADVANCED INORGANIC CHEMISTRY.—A study of modern theories of valence and molecular structure; also of inorganic compounds, particularly the less common types, illustrated by suitable laboratory preparations. Prerequisites: Chemistry 70, 151-152, and 261-262, or 206. 4 or 6 s.h.

PROFESSORS VOSBURGH AND HILL

233. INSTRUMENTAL ANALYSIS.—Experiments in the use of physical measuring instruments in chemical analysis with special attention to optical instruments. One lecture and three laboratory hours per week. Prerequisites: Chemistry 70 and one year of physics. 2 s.h. ASSISTANT PROFESSOR STROBEL; PROFESSORS HOBBS, SAYLOR, AND VOSBURGH

234. PHYSICO-CHEMICAL METHODS OF ANALYSIS.—Discussion of physico-chemical principles as applied to methods of instrumental analysis, illustrated by laboratory experiments, with emphasis on methods involving electrical techniques. One lecture and three laboratory hours per week. Prerequisites: Chemistry 70 and either 261-262 or 206; either of the latter may be taken concurrently. 2 s.h.

ASSISTANT PROFESSOR STROBEL; PROFESSORS  
HOBBS, SAYLOR, AND VOSBURGH

236. THEORY OF ANALYTICAL CHEMISTRY.—A study of such topics as precision and errors, theories of precipitation and titration, oxidation and reduction, and others, illustrated by typical analytical methods. One lecture per week. Prerequisites: Chemistry 70 and 261-262. 1 s.h.

PROFESSOR VOSBURGH

251. QUALITATIVE ORGANIC ANALYSIS.—Systematic identification of organic compounds, including a study of solubilities and classification reactions. One lecture and three or six laboratory hours per week. Prerequisites: Chemistry 70 and 151-152. 2 or 3 s.h.

PROFESSOR HAUSER

252. ADVANCED ORGANIC PREPARATIONS.—A laboratory course designed to supplement the student's knowledge of fundamental organic processes by a selected group of laboratory exercises accompanied by oral discussions of techniques and theories pertinent to the experiments. Five hours laboratory and lecture, with lectures in alternate weeks. Prerequisite: Chemistry 70 and 151-152. 2 s.h.

ASSOCIATE PROFESSOR BROWN AND PROFESSOR BIGELOW

253-254. ADVANCED ORGANIC CHEMISTRY.—Discussion of the theories of organic chemistry with special reference in the first semester to the mechanism of reactions and in the second semester to the synthesis of some of the more complex compounds such as vitamins, hormones, and alkaloids. Undergraduates are admitted to this course only by permission of the Director of Undergraduate Studies. Prerequisites: Chemistry 70 and 151-152. 4 s.h.

PROFESSORS BIGELOW AND HAUSER

261-262. PHYSICAL CHEMISTRY.—Fundamentals of general theoretical chemistry illustrated by selected laboratory experiments. Two recitations and three laboratory hours. Prerequisites: Chemistry 70, 151-152, Physics 51-52 or 1-2 and Mathematics 51-52 or equivalent. 6 s.h.

PROFESSORS HOBBS AND SAYLOR

265-266. CHEMICAL PHYSICS, STATISTICAL THEORY.—General introduction to statistical mechanics and applications to chemical problems; solution theory, reaction velocity, changes of state, quantum statistics and the metallic state. Lectures, conferences, and assigned problems. 6 s.h.

PROFESSOR LONDON

267-268. CHEMICAL PHYSICS. QUANTUM THEORY OF ATOMIC AND MOLECULAR STRUCTURE.—Theory of atomic and molecular forces and the structure of matter. Lectures, conferences, and assigned problems. 6 s.h.

PROFESSOR LONDON

271. INTRODUCTION TO RESEARCH.—Lectures on the use of chemical literature, research methods, recording and publication of results, and other topics. One lecture per week. 1 s.h.

ASSOCIATE PROFESSOR BROWN

273-274. SEMINAR.—Required of all graduate students in chemistry. One hour a week discussion. 2 s.h.

PROFESSORS BIGELOW, GROSS, HAUSER, HILL, HOBBS, SAYLOR, AND  
VOSBURGH; ASSOCIATE PROFESSORS BRADSHAW AND BROWN

275-276. RESEARCH.—The aim of this course is to give instruction in methods used in the investigation of original problems. Nine hours a week and conferences. 3 or 6 s.h.

PROFESSORS BIGELOW, GROSS, HAUSER, HILL, HOBBS, LONDON, SAYLOR,  
AND VOSBURGH; ASSOCIATE PROFESSORS BRADSHAW AND BROWN

#### FOR GRADUATES

303. THERMODYNAMICS.—Fundamental laws of thermodynamics and their applications to chemistry and physics. 3 s.h.

PROFESSORS SAYLOR AND VOSBURGH

304. PHYSICAL CHEMISTRY OF REACTIONS.—The theoretical aspects of reaction kinetics, chemical equilibrium, atomic and molecular forces, and the rela-



tion of these to chemical reactions are considered. Prerequisite: Chemistry 261-262. 3 s.h. PROFESSOR HOBBS

350. ORGANIC REACTIONS.—A study of the scope and limitations of the more important types of reactions of organic chemistry from the point of view of their practical use in the synthesis of organic compounds. Lectures and discussion. Prerequisites: Chemistry 251 and 253. 2 s.h. ASSOCIATE PROFESSOR BRADSHAW

351-352. ADVANCED SYNTHETIC ORGANIC CHEMISTRY.—Recent advances in certain selected fields, such as the mechanism of organic reactions, medicinals, dyes, perfumes, terpenes, and alkaloids, will be discussed. The emphasis will be placed on structure studies and synthetic methods. Lecture or seminar one hour each week. 2 s.h. PROFESSORS BIGELOW AND HAUSER

363-364. ADVANCED PHYSICAL CHEMISTRY.—Recent advances in physical chemistry are considered. Prerequisites: Chemistry 261-262 and 303, or equivalent. 4 s.h. PROFESSORS HILL, HOBBS, SAYLOR, AND VOSBURGH

#### RELATED COURSES IN OTHER DEPARTMENTS

Biochemistry and Nutrition M241, M242, M341, M343-344, M349-350, M351; and Microbiology M322.

## ECONOMICS

PROFESSOR HOOVER, CHAIRMAN—320 LIBRARY; PROFESSOR SPENGLER, DIRECTOR OF GRADUATE STUDIES—322 LIBRARY; PROFESSORS BLACK, DE VYVER, HANNA, HUMPHREY, RATCHFORD, SIMMONS, SMITH, AND VON BECKERATH; ASSOCIATE PROFESSOR LANDON; ASSISTANT PROFESSORS CARTTER AND MCKENZIE

Graduate work in the Department of Economics is offered leading to the A.M. and Ph.D. degrees. In order to enter upon graduate work in Economics a student should have completed with satisfactory grades at least 12 semester hours of undergraduate work in Economics, including 6 hours of Principles of Economics. Among the undergraduate courses of distinct advantage to the graduate student specializing in Economics are: General Accounting, Elementary Statistics, and basic courses in Philosophy, Psychology, the Social Sciences other than Economics, and Mathematics.

Students who are working toward a Ph.D. degree in Economics may concentrate their studies in any of the following fields: Economic Theory, History of Economic Thought, Economic Systems, Economic History, Population and Resources, Money and Banking, Labor, Public Finance, Business and Government, Business Cycles and Private Finance, and International Trade and Finance. Advanced work is offered also in these fields: Accounting, Marketing, Statistics, and Latin-American Economic Problems.

Further information on departmental requirements for advanced degrees, fellowships and scholarships, statistical and library facilities, and related matters may be obtained from the Director of Graduate Studies in Economics.

For 1953-54 the following courses are planned: 204, 215, 216, 217, 218, 231, 234, 235, 237-238, 240, 241, 244, 245, 256, 257, 258, 265, 275-276, 311-312, 313-314, 317, 355, 365, and Public Control of Business Seminar.

#### FOR SENIORS AND GRADUATES

204. ADVANCED MONEY AND BANKING.—Structure and functioning of the monetary and banking mechanism. Presupposes a thorough grounding in the field. Particular attention is given to significant areas involving issues of economic policy. Primary emphasis is placed upon the underlying basis of monetary management and upon its implementation by the central banking authorities. 3 s.h. PROFESSOR SIMMONS

215. ECONOMIC SYSTEMS.—A study of alternative economic systems. An analysis of the basic elements of capitalism and of collectivist types of economic systems. Particular attention is given to an analysis of the economic system of Soviet Russia. Credit for this course will be given only if the student takes Economics 216. 3 s.h. PROFESSOR HOOVER



216. **ECONOMIC FUNCTIONS OF THE STATE.**—A continuation of Economics 215. A consideration of the economic functions of society and of the contrasting roles of the state in the various economic systems in carrying on these functions. The Nazi system, the quasi-socialized economies of Europe, as well as the modifications of old-style capitalism in the United States, are analyzed. Prerequisite: Economics 215. 3 s.h.  
 PROFESSOR HOOVER

217. **POPULATION PROBLEMS AND RESOURCES.**—Survey of population theory and policy. Study of national and international trends in population-growth and resource-use, together with analyses of their economic and social implications. 3 s.h.  
 PROFESSOR SPENGLER

218. **BUSINESS CYCLES.**—Description and analysis of the causes and consequences of economic rhythms and movements of various lengths (e.g., seasonal, cyclical, long-period, etc.). Analysis of methods proposed as means of curtailing such movements, or of mitigating their effects. 3 s.h.  
 PROFESSOR HUMPHREY

231. **THE ECONOMIC HISTORY OF EUROPE.**—The economic development of Europe from medieval times to the present, treating such topics as guilds, mercantilism, money, banking, crises, the Industrial Revolution, the interrelationships of government and business, and the economic consequences of war. 3 s.h.  
 PROFESSOR SMITH

233. **STATE AND LOCAL FINANCE.**—A study of expenditures, taxation, and financial administration in state and local governments with emphasis on current problems. Special attention will be given to research methods and materials and to the financial relations between state and local governments. 3 s.h.  
 PROFESSOR RATCHFORD

234. **FEDERAL FINANCE.**—A study of the expenditures, revenue, and financial administration of the government of the United States, with emphasis on current problems. Special attention given to budgetary procedure, corporate and individual income taxes, and the financial relations between federal and state governments. 3 s.h.  
 PROFESSOR RATCHFORD

235. **FISCAL POLICY.**—A systematic consideration of fiscal policy and its relation to economic stabilization, with emphasis on the fiscal activities of the Federal Government. Special attention is given to the nature, goals, potentialities and limitations of fiscal policy. One part of the course is devoted to a study of the structure, distribution and management of the Federal Debt and its impact upon the financial system. 3 s.h.  
 PROFESSOR RATCHFORD

236. **TAXATION AND GOVERNMENT FINANCE.**—A basic course in public finance for advanced students. Primary emphasis is placed on taxation and tax policy, with consideration also of government expenditures, financial administration, intergovernmental fiscal relations, and public debts. Readings in texts, monographs, and source materials will be supplemented by lectures, class discussions, and reports on special topics. Not open to students who have received credit for Economics 187 or equivalent. 3 s.h.  
 PROFESSOR RATCHFORD

237-238. **STATISTICAL METHODS.**—A study of statistical methods appropriate for dealing with problems in business and the social sciences. In addition to developing more thoroughly the subjects considered in *Business Statistics*, the following methods will be considered: multiple, partial, and curvilinear correlation; curve fitting; probability; sampling distributions; and statistical inference. Prerequisite: Economics 138 or consent of the instructor. Either semester may be taken for credit. 6 s.h.  
 PROFESSOR HANNA

240. **NATIONAL INCOME.**—A critical survey of the conceptual framework and structure of national income and its components, the reliability of national income estimates, and their use in analyzing questions of economic policy. 3 s.h.  
 PROFESSOR HANNA

241-242. **VALUE AND DISTRIBUTION.**—This course is a critical survey of the leading contemporary explanations of price formation and of the determination of interest, rent, wages, and profits. 6 s.h.  
 PROFESSOR SPENGLER

**243. MATHEMATICAL ECONOMICS.**—A systematic survey of mathematical economic theory. The principal topics are conditions of static equilibrium, including stability conditions, dynamic models using difference equations, and linear production models of input-output analysis and activity analysis. 3 s.h.

ASSISTANT PROFESSOR MCKENZIE

**244. INTRODUCTION TO ECONOMETRICS.**—The theory of statistical model building in economics. The identifiability of parameters in a system of linear difference equations. The statistical estimation of parameters. The design of dynamic economic models. 3 s.h.

ASSISTANT PROFESSOR MCKENZIE

**245. PROBLEMS OF MODERN INDUSTRIALISM.**—Description and analysis of the growth of modern industrialism, of the structure and operation of large scale industry, of the inter-relations of industrial, political, and legal development, and of the implications for industry of the modern welfare state. 3 s.h.

PROFESSOR VON BECKERATH

**256. LABOR LEGISLATION AND SOCIAL INSURANCE.**—A study of the relations of the state to labor problems with special reference to remedial legislation, to interference in labor disputes, and to social insurance. 3 s.h.

PROFESSOR DE VYVER

**257. DYNAMICS OF THE LABOR MOVEMENT.**—A study of the forces which have shaped the growth of the labor movement. Special emphasis on the origin of modern trade unionism, relating its growth with Western philosophic developments, and with the changing economic and social structure of society in Europe and America. 3 s.h.

ASSISTANT PROFESSOR CARTER

**258. LABOR MARKET ANALYSIS.**—An analysis of the structure of labor markets and the determination of wages. This course combines a critique of modern wage theory with empirical investigations into current problems of employment and wage determination. 3 s.h.

ASSISTANT PROFESSOR CARTER

**262. TRADE UNIONISM AND COLLECTIVE BARGAINING.**—An intensive survey of the trade union as an economic institution is followed by a study of the principles and problems of union-management relationship as found in collective bargaining. 3 s.h.

PROFESSOR DE VYVER

**265. INTERNATIONAL TRADE AND FINANCE.**—A study of the fundamental principles of international trade and foreign exchange. Subjects covered will include international specialization, balance of payments, foreign investments, tariffs and commercial policies, exchange control, exchange rates, and international monetary problems. 3 s.h.

**268. COMPETITIVE VERSUS MONOPOLISTIC ENTERPRISE.**—A study of monopoly and imperfect competition as disturbances of a free, self-regulating market economy in an individualistic democratic political system; of the possibilities of public and private action respecting the preservation of these systems; and of the implications of planning and public welfare policies. 3 s.h.

PROFESSOR VON BECKERATH

**275-276. ADVANCED INDUSTRIAL ACCOUNTING AND MANAGEMENT.**—This course traces the ways and means of executive control through statistics and industrial accountancy. Emphasis is put upon the economics of overhead costs. A complete practice set of cost accounting is worked by each student during the course. Courses 57-58 and 105 are ordinarily prerequisites for this course. 6 s.h.

PROFESSOR BLACK

#### FOR GRADUATES

**304. SEMINAR IN MONEY AND BANKING.**—3 s.h.

PROFESSOR SIMMONS

**311-312. HISTORY OF POLITICAL ECONOMY.**—This course traces the development of economic theory, giving special attention to the various schools of economic thought in England, France, Germany, Italy, and the United States. A large amount of collateral reading in the works of typical authors is required. Lectures and class discussions. 6 s.h.

PROFESSOR SPENGLER

**313-314. SEMINAR IN ECONOMIC THEORY.**—The course consists of directed research in economic theory. The primary purpose is the correction of authori-

tative eclecticism and its replacement by individually integrated theory. Prerequisite: Economics 241-242 or its equivalent. 6 s.h. PROFESSOR HOOVER

317. SEMINAR IN POPULATION PROBLEMS.—3 s.h. PROFESSOR SPENGLER

318. GENERAL SEMINAR IN ECONOMICS.—All graduate students with economics as a major subject are members of this seminar. Reports of progress in research will be made, and there will be lectures and critical discussion by members of the Department. Year course. No credit. STAFF

319. SEMINAR IN THE THEORIES AND PROBLEMS OF ECONOMIC CHANGE.—3 s.h. PROFESSOR SPENGLER

320. SEMINAR IN BUSINESS CYCLES.—3 s.h. PROFESSOR HUMPHREY

330. SEMINAR IN PUBLIC FINANCE.—3 s.h. PROFESSOR RATCHFORD

331. RESEARCH IN ECONOMIC HISTORY: A SEMINAR.—3 s.h. PROFESSOR SMITH

343. SEMINAR IN FINANCIAL ORGANIZATION.—3 s.h. PROFESSOR RATCHFORD

355. SEMINAR IN LABOR PROBLEMS.—3 s.h. PROFESSOR DE VYVER

365. SEMINAR IN INTERNATIONAL TRADE.—3 s.h. PROFESSOR HUMPHREY

368. SEMINAR IN MARKETING PROBLEMS.—3 s.h. ASSOCIATE PROFESSOR LANDON

386. SEMINAR IN LATIN-AMERICAN ECONOMIC PROBLEMS.—3 s.h. PROFESSOR SMITH

389. SEMINAR IN BUSINESS AND GOVERNMENT.—3 s.h. PROFESSOR HUMPHREY

#### RELATED COURSES IN OTHER DEPARTMENTS

The following course, included in the curriculum of the School of Law, carries economics credit for economics majors:

PUBLIC CONTROL OF BUSINESS SEMINAR.—Intensive study of the federal anti-trust laws and their common-law background, with emphasis on the economic policies involved. 3 s.h. PROFESSORS LIVENGOOD AND SPENGLER

Attention is called to the following courses in related departments:  
Forestry 277; Political Science 207.

## EDUCATION

PROFESSOR CARTWRIGHT, CHAIRMAN—1c2 WEST DUKE BUILDING; PROFESSOR BOLMEIER, DIRECTOR OF GRADUATE STUDIES;—1c1 WEST DUKE BUILDING; PROFESSORS CARR, CHILDS, AND NAHM; ASSOCIATE PROFESSORS EASLEY, RUDISILL, STUMPF, AND WEITZ; ASSISTANT PROFESSORS MCLENDON AND PETTY

Graduate work in Education is offered leading to the A.M., the M.Ed., the Ph.D., and the Ed.D. degrees. For each of these degrees there are specific requirements and prerequisites, all of which may be found stated in detail in this *Bulletin*, pp. 33-41.

Departmental requirements and prerequisites for all of these degrees may be obtained from the Director of Graduate Studies. The courses planned for 1953-54 are 201, 203, 204, 205, 206, 208A, 208B, 209, 210, 217, 224, 225, 226, 234, 235, 253, 255, 258, 330-331.

### ELEMENTARY EDUCATION

#### FOR SENIORS AND GRADUATES

201. TEACHING AND SUPERVISION OF ARITHMETIC.—This course gives special attention to the number system, the fundamental operations (with whole numbers, fractions, and decimals), percentage, and measurements. The course will consider the meaning theory, method of teaching, problem solving, evaluation, practice and drill, and selection and gradation of arithmetical contents. The course is designed for teachers and supervisors in the elementary school. 3 s.h. (E)

ASSISTANT PROFESSOR PETTY

207. **TECHNIQUE OF TEACHING.**—An advanced course in the teaching process, dealing with the theory underlying sound technique and applied specifically to the work of the elementary school. 3 s.h. (E)  
PROFESSOR CARR

212. **PSYCHOLOGY OF THE ELEMENTARY SCHOOL SUBJECTS.**—A study of the psychology of learning as applied to teaching the common school subjects. 3 s.h. (E)  
PROFESSOR CARR

222. **THE CURRICULUM AND MATERIALS OF THE ELEMENTARY GRADES.**—A study of curriculum problems in the elementary schools. 3 s.h. (E)  
PROFESSOR CARR

224. **TEACHING THE SOCIAL STUDIES IN ELEMENTARY SCHOOLS.**—This course will treat objectives, curriculum trends, methods, and materials in elementary-school social studies. Topics to receive emphasis include unit-planning, use of the textbook, the reading program, using community resources, audio-visual materials, dealing with controversial issues, teaching time and place concepts, and evaluation. Opportunity will be provided for teachers to work on their own school problems in the social studies. 3 s.h. (E)  
PROFESSOR CARTWRIGHT

226. **TEACHING READING IN THE ELEMENTARY SCHOOL.**—A study of the nature of the reading process and of principles, methods, and materials for the development of effective reading attitudes and skills as applied both to developmental and remedial programs. The course provides practice with elementary-school children suffering reading retardation, including testing, diagnosis, and daily remedial teaching during the six-week period. 3 s.h. (E)  
ASSOCIATE PROFESSOR RUDISILL

232. **SUPERVISION OF INSTRUCTION.**—A survey of supervision as a means of improving instruction and adapting the curriculum to the learner and to community needs. 3 s.h. (E)  
PROFESSOR CARR

235. **THE NATURE, FUNCTION, AND REORGANIZATION OF THE CURRICULUM.**—One of the required courses for the Master of Education degree without thesis. Selected problems guiding the reading of students. Open to graduate students only. 3 s.h. (E)  
PROFESSORS CARR AND CARTWRIGHT

## EXPERIMENTAL EDUCATION AND EDUCATIONAL PSYCHOLOGY

### FOR SENIORS AND GRADUATES

208A. **MENTAL TESTS AND APPLICATION.**—A study of the development of intelligence testing, the concept of general intelligence, various recent applications of mental tests, and training in the giving of individual tests. Prerequisite: course 258 or six semester hours of other work in educational psychology or psychology. First semester. 3 s.h. (E)  
ASSOCIATE PROFESSOR EASLEY

208B. **PRACTICUM.**—Open only to students approved by the instructor. Second semester. 2 s.h. (E)  
ASSOCIATE PROFESSOR EASLEY

209. **STATISTICAL METHODS APPLIED TO EDUCATION.**—A study of statistical methods of treating educational and social data designed to enable teachers or administrators to interpret and use the results of scientific investigations in education. 3 s.h. (E)  
ASSOCIATE PROFESSORS EASLEY AND STUMPE

210. **INTRODUCTION TO EDUCATIONAL RESEARCH.**—The general purpose of this course is to give the student an overview of research, acquaint him with the nature of research processes, and develop within him an appreciation of the essential characteristics of good research work. The course is one of the four basic courses required for the Master of Education degree without thesis and is designed to be liberalizing as well as technical. Open to graduate students only. 3 s.h. (E)  
ASSOCIATE PROFESSOR STUMPE

216. **PSYCHOLOGICAL PRINCIPLES OF SECONDARY EDUCATION.**—A study of adolescence and the psychology of learning as applied to teaching the principal high-school subjects. 3 s.h. (E)  
PROFESSOR CHILDS

217. **THE PSYCHOLOGICAL PRINCIPLES OF EDUCATION.**—An advanced study of teaching, learning, and the learner. This is one of the courses required



for the Master of Education degree without thesis. Selected problems guiding the reading of students will be discussed in class. Open to graduate students only. 3 s.h. (E) ASSOCIATE PROFESSOR EASLEY

227. THE PSYCHOLOGY OF LEARNING: PROBLEMS.—The major problems related to the learning process will be examined, with the experimental literature bearing on them. The curves of learning and forgetting, the distribution of practice, economical methods of learning, and the transfer of training will be the major topics considered. 3 s.h. (E) ASSOCIATE PROFESSOR EASLEY

258. EDUCATIONAL MEASUREMENTS.—A critical study of the principles and techniques involved in measurement in education, with opportunity for individual research. Prerequisite: twelve semester hours in the Department, including a course in educational psychology. 3 s.h. (E) ASSOCIATE PROFESSOR WEITZ

## HISTORY AND PHILOSOPHY OF EDUCATION

### FOR SENIORS AND GRADUATES

200. INTRODUCTION TO THE PHILOSOPHY OF EDUCATION.—A consideration of fundamental concepts underlying educational theory. 3 s.h. (E)

204. THE SCHOOL AS AN INSTITUTION.—Consideration is given to the place of the school in the American social order, and its adaptation to social, economic, and political changes. Special attention is directed to the responsibility (1) of the school for seeking solutions to the perplexing problems of youth created by a changing society; and (2) of the government for providing greater equality of educational opportunities. One of the required courses for the M.Ed. degree without thesis. Open to graduate students only. 3 s.h. (E) PROFESSOR BOLMEIER

214. HISTORY OF EDUCATION IN THE UNITED STATES.—A study of the development of the American public school and the interaction of higher education and the public school. 3 s.h. (E)

## PUBLIC SCHOOL ADMINISTRATION

### FOR SENIORS AND GRADUATES

203. PRINCIPLES OF SCHOOL ADMINISTRATION.—The fundamental facts and procedures of school administration, an analysis of the problems and policies of the organization and direction of a local school system, and the functions of the various school officials. Prerequisite: Education 103 and 88, or six semester hours of equivalent work in education. 3 s.h. (E) PROFESSOR BOLMEIER

213. PROBLEMS IN THE ORGANIZATION AND ADMINISTRATION OF THE ELEMENTARY SCHOOL.—A study of the work of the elementary school principal. 3 s.h. (E)

234. SECONDARY-SCHOOL ORGANIZATION AND ADMINISTRATION.—This course is designed especially for principals, teachers, and other prospective members of the secondary-school staff. The scope of secondary education is considered to encompass junior high school, regular high school, senior high, and junior college. Special treatment is given to the problems of internal organization and management. 3 s.h. (E) PROFESSOR BOLMEIER

253. LEGAL PHASES OF SCHOOL ADMINISTRATION.—The primary purpose of this course is to familiarize prospective school administrators with the legal features of school organization and administration. Although some attention is given to constitutional and statutory provisions, the main emphasis is upon court decisions relating to education. Students are expected to select appropriate problems in school law for intensive study. 3 s.h. (E) PROFESSOR BOLMEIER

290. ADMINISTRATION OF SCHOOL PROPERTY.—Planning and management of the school plant and its equipment to meet instructional, health, and community needs for immediate and long-range purposes. This course is intended especially for teachers and principals as well as for superintendents. Areas to be treated will include site selection; trends in design, lighting, ventilation, and heating; custodial service and maintenance; and financing. 3 s.h. (E)

ASSOCIATE PROFESSOR STUMPF



FOR GRADUATES

323. PUBLIC SCHOOL FINANCE.—A study of educational costs, sources of revenue for the support of public education, collection of revenue, basis of distribution, and accounting for funds spent. 3 s.h. (E) ASSOCIATE PROFESSOR STUMPF

330-331. PUBLIC SCHOOL ADMINISTRATION, SEMINAR I.—This seminar is to be taken in the second year of the Ed.D. program. It involves consideration of the following four units of work: (1) organizing the school system; (2) administering the educational program; (3) financing the educational program; (4) administering the school personnel. 6 s.h. each semester. (E)

PROFESSORS CARTWRIGHT AND BOLMEIER,  
AND ASSOCIATE PROFESSOR STUMPF

332-333. PUBLIC SCHOOL ADMINISTRATION, SEMINAR II.—This seminar is to be taken in the third year of the Ed.D. program. It involves the business administration of the school system; school plant planning, maintenance and operation; public relations and legal aspects of school administration; school records and reports; policy making and the evolution of current procedures. Students will spend some time in field work observing school systems in operation and studying current problems of school administration. 6 s.h. each semester. (E)

PROFESSOR BOLMEIER AND  
ASSOCIATE PROFESSOR STUMPF

SECONDARY EDUCATION AND EDUCATIONAL SOCIOLOGY

FOR SENIORS AND GRADUATES

205. CURRICULUM PROBLEMS IN SECONDARY EDUCATION.—A consideration of the aims and objectives of secondary school subjects, emphasizing practical problems of curriculum-making in the high school. 3 s.h. (E)

PROFESSOR CARTWRIGHT

206. SOCIOLOGICAL FOUNDATIONS OF THE SECONDARY SCHOOL SUBJECTS.—A consideration of the aims and objectives of the secondary school. Prerequisite: six semester hours in Education, including course 105, or Sociology 104, or its equivalent. 3 s.h. (E)

PROFESSOR CHILDS

215. EDUCATIONAL AND VOCATIONAL GUIDANCE.—A survey of the literature on guidance with special reference to secondary education; a critical study of the principles and techniques used in guidance; an attempt to locate the problems most urgently in need of solution. Prerequisite: twelve semester hours in the Department, including course 105 or course 206. 3 s.h. (E)

PROFESSOR CHILDS

225. THE TEACHING OF HISTORY AND THE SOCIAL STUDIES.—Evaluation of the objectives, content, materials, and methods in the teaching of History and the Social Studies. 3 s.h. (E)

PROFESSOR CARTWRIGHT

236. TEACHING READING IN THE SECONDARY SCHOOL.—A study of the nature of the reading process and of principles, methods, and materials for the development of effective reading attitudes and skills as applied both to developmental and remedial programs. The course provides practice with secondary-school children suffering reading retardation, including testing, diagnosis, and daily remedial teaching during the six-weeks period. For secondary-school teachers of all subjects who wish to improve the reading and study habits of their students. 3 s.h. (E)

ASSOCIATE PROFESSOR RUDISILL

255. GUIDANCE FUNCTIONS OF THE CLASSROOM TEACHER.—A consideration of the guidance philosophy, methods, and tools appropriate to the student personnel functions of the classroom teacher. This course is designed for students who do not plan to become guidance specialists, but who wish to apply the principles and techniques of guidance in their teaching and program of pupil development. Prerequisites: 12 s.h. of work, either in education or in a combination of education and psychology, or in psychology. 3 s.h. (E)

ASSOCIATE PROFESSOR WEITZ

## NURSING EDUCATION

**310. NURSING EDUCATION: ORGANIZATION AND ADMINISTRATION IN NURSING SCHOOLS.**—The organization and administration of schools of nursing; their administrative control and support, the preparation of the budget, the faculty organization, the administration of the curriculum, the provision of instructional facilities, records and reports, and professional and public relations. Problems involved in organizing and administering a hospital nursing service are also presented and relationships between the School of Nursing and the nursing service are discussed. Year course. 4 s.h. PROFESSOR NAHM

**311. NURSING EDUCATION: PROBLEMS OF PERSONNEL ADMINISTRATION IN NURSING.**—A course which deals with problems in the organization and administration of personnel services for students and for graduate nurses. It includes a discussion of methods of selection and orientation, personnel records, provision for general welfare, counseling, placement, and follow-up. Year course. 4 s.h. PROFESSOR NAHM

**312. NURSING EDUCATION: RESEARCH PROBLEMS.**—To acquire some knowledge of the principles and methods of research each student works on an individual problem in the field of her major interest. Year course. 4 s.h. PROFESSOR NAHM

## METHODOLOGY OF RESEARCH

## FOR GRADUATES

**301. METHODS OF EDUCATIONAL RESEARCH: SEMINAR.**—Graduate students are instructed in methods of research as applied to selected educational problems. Each student must select for intensive study and practice a subject in which he is interested. Either semester. 3 s.h. (E)

PROFESSORS CARR, CHILDS, AND BOLMEIER,  
AND ASSOCIATE PROFESSOR STUMPF

## RELATED COURSES IN OTHER DEPARTMENTS

FOR MAJORS IN EDUCATIONAL PSYCHOLOGY, ELEMENTARY EDUCATION,  
AND SECONDARY EDUCATION

Philosophy 208, 242; Psychology 206, 209, 212, 215, 226, 306, 309, 310; Sociology 249, 381, 382.

## FOR MAJORS IN PUBLIC SCHOOL ADMINISTRATION

Economics 217, 233, 234, 236; Political Science 209, 230, 231, 241-242, 291, 292; Sociology 233, 235, 237, 243, 246.

## FOR MAJORS IN HISTORY AND PHILOSOPHY OF EDUCATION

History 209-210; Philosophy 205, 208, 223; Religion 395, 396; Sociology 286, 381, 382.

## ENGLISH

PROFESSOR IRVING, CHAIRMAN—265 WEST DUKE BUILDING; PROFESSOR BAUM, DIRECTOR OF GRADUATE STUDIES—402 LIBRARY; PROFESSORS BOYCE, BRINKLEY, GILBERT, GOIDES, HUBBELL, AND WARD; VISITING PROFESSOR ERDMAN

The department offers graduate work leading to the A.M. and Ph.D. degrees. Students intending to major in English should have taken enough undergraduate courses in literature to enable them to pursue graduate studies profitably. To satisfy the requirements for the A.M. degree a student must (a) elect 203-204 (3 or 6 semester hours); one of the "period courses" (215-216, 219-220, 221-222, 223-224, 229-230, 233-234, 251-252); an appropriate seminar; and 9 (or 6) additional semester hours; and (b) write a thesis. A statement of the requirements for the Ph.D. degree may be obtained from the Director of Graduate Studies.

In 1953-54 the courses offered are 203-204, 205-206, 215-216, 217 (second semester), 219-220, 227, 229-230, 233-234, 245 (second semester), 251-252, 269 (second semester), 349-350 (a and e; and b in first semester only, and d in second semester only).

FOR SENIORS AND GRADUATES

201-202. **ANGLO-SAXON.**—In the first semester, an introduction to the language, with the reading of selected prose and of some of the shorter poems; in the second semester, the *Beowulf*. 6 s.h.  
 PROFESSOR BAUM

203-204. **CHAUCEER.**—Reading and interpretation of the text; in the first semester, the principal *Canterbury Tales*; in the second, the *Troilus* and the minor poems. A reading report and a term paper. 6 s.h.  
 PROFESSOR BAUM

205-206. **MIDDLE ENGLISH.**—Close study of selected texts, with attention to the development of the language and to the history of the literature from 1200 to 1400. A term paper each semester. 6 s.h.  
 PROFESSOR BAUM

215-216. **ELIZABETHAN DRAMA.**—Careful study of one or two major dramatists (Jonson or Beaumont and Fletcher) and extensive reading in the other writers (Heywood, Ford, Massinger, Marlowe, Middleton) with emphasis on the nature and qualities of their work in relation to its historical background. Exposition of plays, reports, and a term paper each semester. 6 s.h.  
 PROFESSOR GILBERT

217. **MILTON.**—Milton's poetry and prose, with emphasis on the major poems. 3 s.h.  
 PROFESSOR GILBERT

218. **SPENSER.**—The reading of Spenser's work, with chief attention to *The Faerie Queene*. 3 s.h.  
 PROFESSOR GILBERT

219-220. **THE EIGHTEENTH CENTURY.**—Swift, Pope, Defoe, Addison, Steele, and others are studied in the first semester; in the second, Gray, Johnson, Boswell, Goldsmith, the letter writers, and the early Romantic poets. Lectures, oral reports, and a term paper each semester. 6 s.h.  
 PROFESSOR IRVING

221-222. **ENGLISH LITERATURE OF THE EARLY NINETEENTH CENTURY.**—The British Romantic poets and prose writers from Scott to the early Carlyle, with special attention to Wordsworth, Coleridge, and Keats. While these writers will be approached historically, the main object will be to understand and estimate the aesthetic and ethical values of their writings. Discussion and short papers. 6 s.h.  
 VISITING PROFESSOR ERDMAN

223-224. **ENGLISH LITERATURE OF THE LATER NINETEENTH CENTURY.**—Some of the most important works of the period are discussed in class; the background is filled in by lectures and assigned reading. The first semester is devoted chiefly to Carlyle, Dickens, Thackeray, Tennyson, and Browning; the second semester to Arnold, Ruskin, Pater, George Eliot, Meredith, the Pre-Raphaelites, and Swinburne. A term paper each semester. 6 s.h.  
 PROFESSOR BAUM

227. **LITERARY CRITICISM.**—A study of the Greek and Roman critics, in chronological order but with emphasis on their permanent value rather than on the mere history; also of the Continental and English critics to about 1700. Lectures, reports, and a term paper. 3 s.h.  
 PROFESSOR GILBERT

229-230. **AMERICAN LITERATURE, 1800-1870.**—The writers emphasized in the first semester are Emerson, Thoreau, and Hawthorne; in the second semester, Poe and Melville. In the first semester some attention is given also to Edwards, Franklin, Bryant, Longfellow, Holmes, Whittier, Lowell, and Parkman; and in the second semester, to Byrd, Jefferson, Paine, Freneau, Brown, Irving, Cooper, Kennedy, Simms, Timrod, and Lincoln. An oral report and a term paper in the first semester. 6 s.h. (E)  
 PROFESSOR HUBBELL

232. **WHITMAN.**—A detailed study of *Leaves of Grass* and of selected prose works. One test and one term paper. 3 s.h. (E) To be offered in the first semester.  
 PROFESSOR GOHDES

233-234. **AMERICAN LITERATURE SINCE 1870.**—Selected works of the chief authors of the period, including Whitman, Lanier, Mark Twain, James, Howells, Emily Dickenson, Crane, Dreiser, Hemingway, O'Neill, and others. The lectures will deal with the social background and with the careers of the leading authors. One test and one term paper each semester. 6 s.h. (E)  
 PROFESSOR GOHDES

237. ENGLISH DRAMA, 1642-1800.—The Heroic Play and the Comedy of Manners of the Restoration period; and the important plays, serious and comic, of the eighteenth century. Lectures, class discussions, and short reports. 3 s.h.

PROFESSOR WARD

239. SHAKESPEARE.—A study of the plays and poems, with attention to sources, earlier criticism, and the work of Shakespeare's contemporaries. 3 s.h.

PROFESSOR GILBERT

241. STUDIES IN DRYDEN.—A detailed study of the poet's non-dramatic work. Lectures on the political, religious, and literary background. A term report. 3 s.h.

PROFESSOR WARD

245. THE EIGHTEENTH-CENTURY NOVEL.—Richardson, Fielding, Smollett, and Sterne are emphasized. Some attention is given to earlier prose fiction and to other contributing literary patterns. Lectures and short papers. 3 s.h.

PROFESSOR BOYCE

251-252. ENGLISH LITERATURE OF THE SEVENTEENTH CENTURY.—A survey of the major works in prose, poetry, and drama from 1600 to the death of Dryden. Lectures, reports, and a term paper each semester. 6 s.h.

PROFESSOR WARD

269-270. SOUTHERN LITERATURE.—The principal writers discussed during the first semester are Byrd, Jefferson, Wirt, Kennedy, the Cooke brothers, Legaré, Simms, Timrod, Hayne, Longstreet and other humorists, and the poets of the Civil War. Considerable attention is paid to the historical and cultural background and to Northern and British authors who wrote about the South. An oral report and a term paper each semester. 6 s.h.

PROFESSOR HUBBELL

#### FOR GRADUATES

349-350. SEMINAR COURSES.—An introduction to bibliography and methods of research. One of these courses is required of all candidates for the degree of Master of Arts. 6 s.h.

#### (a) SIXTEENTH AND SEVENTEENTH CENTURIES.

PROFESSORS GILBERT AND WARD

#### (b) EIGHTEENTH CENTURY.

PROFESSORS IRVING AND BOYCE

#### (c) EARLY NINETEENTH CENTURY.

VISITING PROFESSOR ERDMAN

#### (d) LATER NINETEENTH CENTURY.

PROFESSOR BAUM

#### (e) AMERICAN LITERATURE.

PROFESSORS HUBBELL AND GOHDES

359-360. RESEARCH COURSES.—Opportunity for advanced study; intended specially for candidates for the Ph.D. degree. 3 or 6 s.h.

STAFF

## FORESTRY

PROFESSOR KORSTIAN, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES—308 SOCIAL SCIENCE; PROFESSORS COILE, HARRAR, KRAMER, SCHUMACHER, AND WOLF; ASSOCIATE PROFESSOR ANDERSON

Major and minor work is offered in the scientific aspects of forestry leading to the Master of Arts and Doctor of Philosophy degrees. Work for these degrees may be pursued only in forest-tree physiology, wood anatomy and properties, forest pathology, silvics, forest soils, forest mensuration, forest entomology, and forest economics. College graduates who have had specialized training in botany or soil science and in allied basic subjects, such as physics, chemistry, geology, and zoology, may pursue graduate study and research only in the specialized fields for which their previous work has qualified them. Students who do not have previous training in forestry will be required to complete a minimum of thirty semester hours of approved work in forestry as a preliminary requirement to advanced study for the A.M. and Ph.D. degrees. The holders of these degrees will not be regarded as professionally trained foresters. For information on professional training in forestry, see *Bulletin of the School of Forestry*. For detailed information



concerning admission to the Graduate School and for regulations governing candidacy for the A.M. and Ph.D. degrees and for other regulations, consult the proper pages in this *Bulletin*.

## FOR SENIORS AND GRADUATES

224. FOREST PATHOLOGY.—Special reference to diseases of forest trees. Prerequisites: Botany 1 and 2, and Forestry 253, or equivalent. 4 s.h.

PROFESSOR WOLF

231. FOREST ENTOMOLOGY.—Morphology, general classification, life histories, and control of insects injurious to forest trees, logs, and lumber. 3 s.h.

ASSOCIATE PROFESSOR ANDERSON

251. SAMPLING METHODS IN FORESTRY.—Statistical background for solution of sampling problems with special reference to sample inventory of a forest property. Offered both semesters. Prerequisite: Forestry S151. 3 s.h.

PROFESSOR SCHUMACHER

252. FOREST MENSURATION.—Empirical equation and curve fitting appropriate for construction of timber yield tables, tree volume and taper tables; significance tests and graphical solution of equations. Assignments require operation of calculating machines. Prerequisite: Forestry 251. 3 s.h.

PROFESSOR SCHUMACHER

253. DENDROLOGY.—Nomenclature, classification, and identification of woody plants with special reference to species indigenous to southeastern United States and other important forest regions of temperate North America. Laboratory and field work. Prerequisite: one year of botany. 3 s.h.

PROFESSOR HARRAR

257. DESIGN OF FORESTRY EXPERIMENTS AND ANALYSIS OF DATA.—Role of experimental design in field and laboratory, and statistical analysis of data as aspects of scientific method in forest research. 5 s.h.

PROFESSOR SCHUMACHER

259. PROPERTIES OF WOOD.—The chemical nature of wood substance and its industrial chemical derivatives. Wood-moisture relationships; pertinent non-mechanical physical properties; mechanical properties and factors affecting the strength of wood; standard timber testing procedures. Uses of woods as determined by their properties. Prerequisites: Forestry 259, one year of college chemistry; one course in college physics. 3 s.h. (w)

PROFESSOR HARRAR

260. WOOD ANATOMY.—Study of the physical features and the gross and minute structural characteristics of wood leading to the identification of the commercial woods of the United States, and the important tropical woods used in American wood-working industries. Elementary microtechnique. Prerequisites: one year of botany. 3 s.h. (w)

PROFESSOR HARRAR

261. FOREST SOILS.—Origin, development, and classification of soils with special emphasis on those developed in humid climates; morphological, physical, and chemical properties of soils in relation to growth of trees; effect of forests on soils. Prerequisites: Chemistry 1 and 2, and Physics 1, or equivalents; physical geology, mineralogy, petrology, and analytical chemistry are also desirable. 3 s.h.

PROFESSOR COILE

264. SILVICS.—Ecological foundations of silviculture with special reference to forest site factors; influence of forests on their environment; growth and development of trees and strands; origin, development, and classification of forest communities; methods of studying forest environments. Desirable prerequisites: plant physiology, plant ecology, and Forestry 253 and 261, or equivalents. 3 s.h.

PROFESSOR KORSTIAN

275. FORESTRY POLICY.—Critical study of forestry movement and development of a forestry policy, particularly in the United States; brief résumé of forestry in important foreign countries; public land laws of the United States; development of federal and state forestry; forestry laws. 2 s.h.

277. ECONOMICS OF FORESTRY.—Principles of forest economics. Contributions of land, labor, and capital to income from forestry enterprises; costs of pro-



duction and maintenance of forest income; forest resources and requirements in products and services; consumption and prices of forest products; forest ownership problems; forest appraisal and comparative valuation; forest fire insurance and forestry credit; forest taxation; timber marketing problems; effect of business cycles and long-term trends upon demand and prices of forest products. Prerequisite: at least one course in the principles of economics. 3 s.h.

## FOR GRADUATES

323-324. ADVANCED FOREST PATHOLOGY.—Advanced study and research on life histories and control of diseases of forest trees to meet individual needs of graduate students. Prerequisites: plant physiology and forest pathology. Credits to be arranged. PROFESSOR WOLF

326. ADVANCED FOREST SOILS.—Interrelations of the physical, chemical, and biological characteristics of forest and range soils. Prerequisites: analytical chemistry and Forestry 261. 3 s.h. (w) PROFESSOR COILE

351-352. ADVANCED PHYSIOLOGY OF FOREST TREES.—Advanced study and research on problems in physiology of forest trees to meet individual needs of graduate students. Prerequisites: plant physiology and plant ecology or silvics. Credits to be arranged. PROFESSOR KRAMER

356. COMPARATIVE FOREST VALUATION.—Critical analysis of classical and contemporary doctrines of comparative forest valuation. Principles underlying the measurement of forces affecting values of land for forestry and alternative uses and investments of capital. Solution of problems involving procedures based upon these principles. Prerequisite: Forestry 277 or equivalent; courses in economic theory are desirable. 2 s.h.

357-358. RESEARCH IN FORESTRY.—Credits to be arranged. Students who have had adequate training may do research under direction of members of the Faculty in the following branches of forestry:

a. SILVICS.—Prerequisites: Forestry 253, 261, and 264, or equivalents.

PROFESSOR KORSTIAN

b. FOREST SOILS.—Prerequisite: Forestry 261 or equivalent.

PROFESSOR COILE

c. FOREST ECONOMICS.—Prerequisite: Forestry 277 or equivalent.

f. PROPERTIES OF WOOD.—Prerequisites: Forestry 259 and 260, or equivalents.

PROFESSOR HARRAR

g. FOREST MENSURATION.—Prerequisites: Forestry S151, 251, and 252, or equivalents.

PROFESSOR SCHUMACHER

h. FOREST ENTOMOLOGY.—Prerequisite: Forestry 231 or equivalent.

ASSOCIATE PROFESSOR ANDERSON

## GERMANIC LANGUAGES AND LITERATURE

PROFESSOR VOLLMER, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES—106 SOCIAL SCIENCE; ASSOCIATE PROFESSOR SHEARS

The Department of German offers graduate work leading to the A.M. degree. Students who expect to major in German should have had sufficient undergraduate courses in Germanic languages to enable them to proceed to more advanced work.

Students who wish to take courses in German for a minor should normally have completed a third-year course (in exceptional cases, a second-year course) of College German with acceptable grades.

For 1953-54 the courses planned are 211-212, 213-214.

201-202. GOETHE.—A study of Goethe's life and works. 6 s.h.

203-204. EIGHTEENTH CENTURY.—Eighteenth-century German literature in its relation to contemporary European philosophy. 6 s.h.

PROFESSOR VOLLMER

205-206. MIDDLE HIGH GERMAN.—The language and literature of Germany's first classical period. 6 s.h.

PROFESSOR VOLLMER

207-208. GERMAN ROMANTICISM.—The course covers the entire field of German Romanticism from 1800 to 1850. 6 s.h. PROFESSOR VOLLMER

209-210. KLEIST, GRILLPARZER, AND HEBBEL.—A study of the leading representatives of German drama in the first half of the nineteenth century. 6 s.h.

211-212. HEINRICH HEINE.—A study of the German poet and his immediate successors in the movement known as *Jungdeutschland*. 6 s.h. PROFESSOR VOLLMER

213-214. LITERATURE OF THE EMPIRE, 1871-1914.—A study of the literature of this period with special emphasis on a few leading writers such as Fontane, Hauptmann, Mann, and Hesse. 6 s.h. ASSOCIATE PROFESSOR SHEARS

#### FOR GRADUATES ONLY

301-302. GOTHIC—MIDDLE HIGH GERMAN.—In the first term the essentials of Gothic morphology, phonology, and grammar are investigated, and original Gothic literature is read. In the second term the leading medieval German epics are read in the original. 6 s.h. PROFESSOR VOLLMER

303-304. GERMAN SEMINAR.—A seminar will be conducted in an eighteenth- or nineteenth-century field for properly qualified students. Credit to be arranged. PROFESSOR VOLLMER AND ASSOCIATE PROFESSOR SHEARS

#### RELATED COURSES IN OTHER DEPARTMENTS

The following courses in other departments are recommended to students, who are majoring in Germanics, as particularly valuable in building a proper background for Germanic studies:

(a) Graduate courses in literature or philology, offered by the ancient and modern language departments, to be selected after consultation with the Germanic Department.

(b) Graduate courses in history and philosophy, offered by those departments, to be selected after consultation with the Germanic Department.

## HISTORY

PROFESSOR SYDNOR, CHAIRMAN—101 LIBRARY; PROFESSOR CARROLL, DIRECTOR OF GRADUATE STUDIES—406 LIBRARY; PROFESSORS CLYDE, CURTISS, HAMILTON, LANNING, AND MANCHESTER; ASSOCIATE PROFESSORS FERGUSON, NELSON, PARKER, ROPP, WATSON, AND WOODY; ASSISTANT PROFESSOR STEVENS

A student who intends to work for an A.M. degree in History must present a total of eighteen semester hours of credit for undergraduate courses in History, of which six hours must be in American History if he plans to take his major in that field.

A candidate for the degree of Doctor of Philosophy in History is required to pass, prior to the final examination, a preliminary examination (see above, p. ??). Conducted by the student's Supervisory Committee, the preliminary examination covers the minor field and four fields in history, two of which must be the history of the United States and the history of Western Europe. Upon passing the preliminary examination, and not until then, the student is accepted as a candidate for the Ph.D. degree. The final examination covers the dissertation and the related subject matter in major and minor fields. The Department is at present prepared to offer graduate instruction in the following fields of history: The history of Western Europe to 1648; the history of Western Europe since 1648; the history of the United States; the history of England; the history of Latin America; the history of American Foreign Relations; the history of the Modern Far East; the history of Russia.

For 1953-54 the courses planned are as follows: 203-204, 205-206, 209-210, 230, 231-232, 307, 315, 321, 336, 217-218, 221-222, 243-244, 245-246, 261-262, 267-268, 269-270, 305, 317, 343, 312, 320.

## AMERICAN HISTORY

#### FOR SENIORS AND GRADUATES

203-204. THE UNITED STATES, 1850-1900.—The rise of sectionalism, secession, wartime problems of the Union and Confederacy, political and economic

adjustments of Reconstruction, the status of the Negro, the New South, problems of capital and labor, the agrarian revolt, political parties and reform, the Spanish-American War. 6 s.h.  
ASSOCIATE PROFESSOR WOODY

205-206. THE UNITED STATES IN THE TWENTIETH CENTURY.—The emergence of the United States as a major power; attention is focused on domestic developments and conflicting theories of expansion and federal power. Emphasis in the first semester is on the Progressive era and the first World War; the second semester is devoted to the twenties and to the Franklin Roosevelt administration. 6 s.h. (w)  
ASSOCIATE PROFESSOR WATSON

209-210. CONSTITUTIONAL HISTORY OF THE UNITED STATES, 1760 TO THE PRESENT.—A study of the basic problems in forming the Constitution; of its development through the major crises in the history of the United States; of the effects of changing social, cultural, economic, and political conditions on the Constitution. 6 s.h.  
ASSISTANT PROFESSOR STEVENS

215-216. FOREIGN POLICY AND DIPLOMACY OF THE UNITED STATES.—The work in the first semester, covering the period 1775-1877, deals with such topics as the origins and evolution of basic foreign policies; isolation from Europe; paramount interests in Latin America, including the Monroe Doctrine; international co-operation in the Far East. The work in the second semester, covering the period since 1877, deals with such topics as the rise of the new Manifest Destiny; beginnings of American imperialism in Latin America and the Far East; the failure of traditional neutrality in the first World War; postwar conflicts between isolation and collective security; involvement in the second World War. 6 s.h.  
PROFESSOR CLYDE

230. THE PORTUGUESE EMPIRE AND THE RISE OF BRAZIL.—The course will deal with Portuguese explorations, the establishment of the Portuguese Empire in the East, the transplanting of Portuguese culture overseas and the rise of a native Brazilian civilization. 3 s.h.  
PROFESSOR MANCHESTER

231-232. THE HISPANIC COLONIES AND REPUBLICS IN AMERICA.—The development of the Iberian states as colonizing powers, the Conquest of America, the Spanish treatment of the Indian, the contest between Spain and other European nations over America, the independence movement, the struggle for stable government, the rise of liberalism with special emphasis upon Mexico from the Revolution of 1910 to the present, and basic inter-American developments. 6 s.h.  
PROFESSOR LANNING

233-234. THE INSTITUTIONAL, CULTURAL, AND SOCIAL HISTORY OF HISPANIC AMERICA.—The first semester of this course deals with subject races, the development of mixed breeds, the governmental system, the Church and the Inquisition, and Spanish culture with emphasis upon university subjects. In the second semester the work deals with the political ideas of the wars of independence, revolution and dictatorship, the rise of public education, public health, land reform, and the proletarian movement. 6 s.h.  
PROFESSOR LANNING

263-264. AMERICAN COLONIAL HISTORY AND THE REVOLUTION, 1606-1783.—The growth of institutions and economic life in the English colonies; the American Revolution. 6 s.h.  
ASSOCIATE PROFESSOR WOODY

#### FOR GRADUATES

307. SEMINAR IN AMERICAN POLITICAL HISTORY.—Year course. 2 s.h.

PROFESSOR SYDNOR

315. SEMINAR IN SOUTHERN HISTORY.—Year course. 2 s.h.

ASSOCIATE PROFESSOR WOODY

321. SEMINAR IN THE HISTORY OF SPAIN, HISPANIC AMERICA, AND INTER-AMERICAN RELATIONS.—Year course. 2 s.h.

PROFESSOR LANNING

336. POLITICAL HISTORY OF THE UNITED STATES, 1783-1860.—Among the topics treated are public issues, political ideas, forms of party organization, and techniques for attaining personal and party success in politics. Year course. 4 s.h.

PROFESSOR SYDNOR

337. SOCIAL AND ECONOMIC LIFE OF THE OLD SOUTH.—Conditions and trends in the South in respect to population movements, transportation, agriculture, slavery, urban life, commerce, manufacturing, religion, education, and other intellectual activities. Year course. 4 s.h.  
PROFESSOR SYDNOR

EUROPE AND THE FAR EAST

FOR SENIORS AND GRADUATES

217-218. EUROPE SINCE 1870.—International relations since the Franco-German War is the chief subject of study in this course; special emphasis is placed upon the underlying economic and political influence. 6 s.h.

PROFESSOR CARROLL

221-222. THE AGE OF THE RENAISSANCE.—The decline of characteristic features of medieval civilization and the rise of modern European institutions with particular attention to intellectual movements from Dante to Erasmus. 6 s.h.

ASSOCIATE PROFESSOR NELSON

225-226. THE AGE OF THE REFORMATION.—A survey of European civilization from 1500 through the Peace of Westphalia. 6 s.h.

ASSOCIATE PROFESSOR NELSON

227-228. EUROPE IN THE NINETEENTH CENTURY.—A study, beginning with the career of Napoleon Bonaparte, of the forces and personalities influential in the nineteenth century. Emphasis in the first semester is on the problems of the biographer; in the second, on those of a student of national communities. 6 s.h.

ASSOCIATE PROFESSOR PARKER

241-242. THE FAR EAST.—The history of the Western impact on Eastern Asia in the 19th and 20th centuries. Emphasis is placed on such matters as commercial and colonial expansion, the opening of China and Japan, the development by the Western Powers and Japan of colonial, imperialistic, and nationalistic interests, and the rise of Communist power in Asia. 6 s.h.

PROFESSOR CLYDE

243-244. THE UNITED STATES AND THE FAR EAST.—An historical analysis of American relations with the peoples of Eastern Asia during the 19th and 20th centuries. 6 s.h.

PROFESSOR CLYDE

245-246. WAR IN THE MODERN WORLD.—This course is concerned with the relations between warfare and modern political, economic and social conditions. Special attention is given to the development of British and American military methods and to the events of the American Civil War and the two World Wars. The work in the first semester deals with Clausewitz's theories of warfare and the period from the introduction of gunpowder to 1871; in the second semester there is more detailed analysis of recent land, sea, and air warfare. 6 s.h.

ASSOCIATE PROFESSOR ROPP

261-262. RUSSIA IN THE TWENTIETH CENTURY.—A study of the background of the Revolution of 1917 followed by an analysis of the history and policies of the Soviet state. 6 s.h.

PROFESSOR CURTISS

267-268. THE TRANSITION FROM MEDIEVAL TO MODERN ENGLAND.—A study of the changes in English society and ideas from the time of Edward III to that of Elizabeth. 6 s.h.

ASSOCIATE PROFESSOR FERGUSON

269-270. ENGLISH HISTORY FROM THE TUDOR PERIOD TOWARD THE PRESENT.—Emphasis is on political and governmental leaders, events, and institutions of selected periods and on the underlying forces that shaped them. 6 s.h.

PROFESSOR HAMILTON

FOR GRADUATES

305. SEMINAR IN THE HISTORY OF ENGLAND AND THE BRITISH EMPIRE.—The work consists of practical training in the methods of historical research based on sources for modern British history. Year course. 2 s.h.

PROFESSOR HAMILTON

317. SEMINAR IN RECENT EUROPEAN HISTORY.—Year course. 2 s.h.

PROFESSOR CARROLL



343. SEMINAR IN THE HISTORY OF AMERICAN FOREIGN RELATIONS AND THE FAR EAST.—Particular attention is given to critical examination of the bibliography of the field. Year course. 2 s.h. PROFESSOR CLYDE

### HISTORIOGRAPHY AND THE TEACHING OF HISTORY

FOR GRADUATES

312. SEMINAR IN THE TEACHING OF HISTORY IN COLLEGE.—The work in this course is intended to acquaint students with the problems involved in teaching history in college. It includes critical observation of the teaching by members of the History Staff in Duke University. Year course. 2 s.h.

PROFESSOR MANCHESTER AND PROFESSOR HAMILTON

This course is required of all candidates for the degree of Doctor of Philosophy who are in residence as many as two years at Duke University unless excused therefrom by the Department.

320. HISTORIOGRAPHY.—A critical study of the process of finding, appraising, and interpreting the sources of history and of the presentation of the results in narrative. Works of important historians from Herodotus to the present are analyzed. The student undertakes specific exercises in research, criticism, and narration. There is consideration of such general topics as schools, theories, philosophies, and the function of history. Year course. 4 s.h.

ASSOCIATE PROFESSOR NELSON

This course is required of all candidates for the degree of Doctor of Philosophy who are in residence as many as two years at Duke University unless excused therefrom by the Department.

329. HISTORIOGRAPHY OF THE SOUTH.—Attention is given to the more important printed and manuscript sources and to the writings of the older historians. Bibliographical and research problems are introduced. Year course. 4 s.h.

ASSOCIATE PROFESSOR WOODY

### RELATED COURSES IN OTHER DEPARTMENTS

Economics 215, 216, 231, 311-312; Political Science 223, 224; Religion 309, 395, 396; Sociology 382.

## MATHEMATICS

PROFESSOR GERGEN, CHAIRMAN—134 PHYSICS BUILDING; PROFESSOR ROBERTS, DIRECTOR OF GRADUATE STUDIES—230 PHYSICS BUILDING; PROFESSORS CARLITZ, DRESSEL, ELLIOTT, AND THOMAS

Graduate work in the Department of Mathematics is offered leading to the A.M. and Ph.D. degrees. The student, in his undergraduate work, must have had courses in differential and integral calculus, and at least 6 semester hours of other courses in mathematics on the junior or senior level.

The A.M. degree with a major in mathematics is awarded primarily on the basis of scholarship. Of the 24 semester hours of course work required for this degree, 18 semester hours must be taken in the Department of Mathematics.

The Ph.D. degree in mathematics is awarded upon the demonstration of ability and training in research. The original dissertation, therefore, becomes the most important of the formal requirements for this degree.

Because of the important literature of mathematics written in German and French, the student must have a practical reading knowledge of these languages near the beginning of his graduate study.

For 1953-54 the courses planned are 204 (second semester only), 229-230, 235-236, 271-272, 285-286, 291-292, 325-326, 343-344.

### FOR SENIORS AND GRADUATES

201. HISTORY OF MATHEMATICS.—Evolution of the number system, arithmetic, geometry, algebra, trigonometry, analytic geometry, calculus, and modern geometry. Brief sketches of mathematicians. Prerequisite: differential calculus. 3 s.h.



204. TEACHING OF MATHEMATICS.—Fundamental processes, methods of study, mathematical literature, content of courses, applications, use of instruments, correlation of different branches, historical development of secondary school mathematics. Must be preceded or accompanied by integral calculus. 3 s.h.

226. GALOIS THEORY OF EQUATIONS.—Permutation groups, group of an equation, solvability by radicals. Prerequisite: calculus. 3 s.h. PROFESSOR THOMAS

227-228. THEORY OF NUMBERS.—Congruences, arithmetic functions, compound moduli, quadratic reciprocity, Gauss sums, quadratic forms, sums of squares. Prerequisite: calculus. 6 s.h. PROFESSOR CARLITZ

229-230. ALGEBRAIC NUMBERS.—Ideals, unique factorization, divisors of the discriminant, determination of the class number. Prerequisite: theory of equations. 6 s.h. PROFESSOR CARLITZ

235-236. ABSTRACT ALGEBRA.—Groups, fields, rings, matrices, quadratic and bilinear forms, general Galois theory, hypercomplex systems. Prerequisite: calculus. 6 s.h. PROFESSOR CARLITZ

247-248. ARITHMETIC OF POLYNOMIALS.—Field theory, detailed study of finite fields, special polynomials and functions, valuation theory, the zeta function. Prerequisite: Mathematics 235 or consent of the instructor. 6 s.h.

PROFESSOR CARLITZ

250. HIGHER GEOMETRY.—Properties of the triangle, transversals, harmonic properties of figures, poles, polars, inversions. 3 s.h. PROFESSOR THOMAS

253-254. DIFFERENTIAL GEOMETRY.—Curves and surfaces in three-dimensional Euclidean space, applicability, differential parameters, Riemannian geometry of  $n$ -space. Prerequisite: calculus. 6 s.h. PROFESSOR THOMAS

255-256. PROJECTIVE GEOMETRY.—Postulational, synthetic treatment centering around Desargues' theorem and the principle of projectivity. Conics, coordinates, order, continuity, metric properties. Prerequisite: calculus. 6 s.h.

PROFESSOR THOMAS

271-272. INTRODUCTORY TOPOLOGY.—Topological properties of Euclidean spaces, set-theoretic and combinatorial methods. Prerequisite: calculus. 6 s.h.

PROFESSOR ROBERTS

285. MATHEMATICAL ANALYSIS FOR CHEMISTS AND PHYSICISTS.—Vectors, line and surface integrals, tensors, complex variables, differential and integral equations. Prerequisite: Mathematics 53. 3 s.h. PROFESSOR DRESSSEL

286. MATHEMATICAL ANALYSIS FOR CHEMISTS AND PHYSICISTS.—Wave equation, Fourier series, heat equations, telegraphic equation, Legendre polynomials, Bessel functions, Schrödinger's equation. Prerequisite: Mathematics 53. 3 s.h. PROFESSOR DRESSSEL

291-292. THEORY OF FUNCTION.—Limits, implicit functions, power series, double series, Cauchy's theorem and its applications, residues, Riemann surfaces, conformal mapping. Prerequisite: calculus. 6 s.h. PROFESSOR THOMAS

#### FOR GRADUATES

301-302. ALGEBRAIC GEOMETRY.—Homogeneous coordinates, singular points and lines, Newton's polygon. Plücker's equations, intersections of curves. Prerequisite: Mathematics 255-256. 6 s.h. PROFESSOR THOMAS

325-326. REAL VARIABLE.—Number system, Lebesgue and Stieltjes integrals, topics in Fourier series. Prerequisite: Mathematics 291-292. 6 s.h. PROFESSOR GERGEN

331-332. COMPLEX VARIABLE.—Analytic continuation, univalent functions, meromorphic functions, analytic functions of several complex variables. Prerequisite: Mathematics 291-292. 6 s.h.

333-334. ANALYTIC THEORY OF NUMBERS.—Distribution of primes, primes in an arithmetic progression, Waring and Goldbach problems. Prerequisite: Mathematics 291-292. 6 s.h. PROFESSOR CARLITZ

337-338. **EXISTENCE THEOREMS.**—Systems of partial differential equations, Pfaffian systems, theorems of Cauchy, Riquier, and Cartan, singular integral varieties. Prerequisite: Mathematics 291-292. 6 s.h.  
 PROFESSOR THOMAS

341-342. **INTEGRAL EQUATIONS.**—Volterra and Fredholm integral equations, application to boundary problems of differential equations. Prerequisite: differential equations and advanced calculus. 6 s.h.  
 PROFESSOR ELLIOTT

343-344. **ORDINARY DIFFERENTIAL EQUATIONS.**—Solution by separation of variables, exact differentials, integrating factors, solution in series. Cauchy's existence theorem, linear differential systems, singular points, partial differential equations equivalent to ordinary systems. Prerequisite: Mathematics 291-292. 6 s.h.  
 PROFESSOR THOMAS

371-372. **DIMENSION THEORY.**—Abstract spaces, separation theory for Euclidean spaces, dimension theory. Prerequisite: Mathematics 271-272. 6 s.h.  
 PROFESSOR ROBERTS

373-374. **CONTINUOUS TRANSFORMATIONS.**—Recent results concerning a number of special types of continuous transformations. Prerequisite: Mathematics 271-272. 6 s.h.  
 PROFESSOR ROBERTS

## PHILOSOPHY

PROFESSOR NEGLEY, CHAIRMAN—3-1 WEST DUKE BUILDING; PROFESSOR BAYLIS, DIRECTOR OF GRADUATE STUDIES—3-1-3 WEST DUKE BUILDING; PROFESSOR PATTERSON;  
 ASSISTANT PROFESSORS PEACH AND WELSH

Candidates for the Ph.D. degree in Philosophy will be expected to acquire teaching proficiency in the general fields of philosophical investigation, and to demonstrate scholarly ability in at least one of those fields. The achievement of specialized competence will necessitate adequate acquaintance with pertinent fields of research. The student will be encouraged to take as much work in minor departments as time permits. Minor study need not be confined to a single department; individual programs will be arranged to suit the students' needs and interests.

The preliminary examinations in Philosophy are evaluated in terms of the ability of the student to continue graduate study; they are not to be interpreted as a comprehensive survey of course study at the graduate level. The student in Philosophy will be expected to fulfill the language requirements and pass the departmental preliminary examinations before the end of the third semester of residence. Students who enter with an A.M. degree will be expected to pass the preliminary examinations before the end of the first year of residence. Information about general requirements, or about preliminary examinations, may be obtained by addressing a request to the Department.

For 1953-54 the courses planned are: 201, 211, 212, 218, 250, 251, 252, 331.

### FOR SENIORS AND GRADUATES

201. **PHILOSOPHY OF LITERARY ANALYSIS.**—Studies in the interpretation of literature, with emphasis on the influence of historical, aesthetic, and philosophical concepts. Examination of literary works as documents in the history of ideas. 3 s.h.  
 ASSISTANT PROFESSOR WELSH

203. **CONTEMPORARY ETHICAL THEORIES.**—Reading and discussion of twentieth-century American and British moralists. 3 s.h.  
 PROFESSOR BAYLIS

205. **THE PHILOSOPHY OF HISTORY.**—An inquiry into the logic and methodology of the knowledge of history, and into the metaphysical implications of history. 3 s.h.  
 PROFESSOR NEGLEY

208. **POLITICAL PHILOSOPHY.**—Analysis of the structure of social organization, with particular reference to the function of law in democratic politics. 3 s.h.  
 PROFESSOR NEGLEY

209. **THE PHILOSOPHY OF RELIGION.**—A critical and constructive study of the nature of religion, of its various forms and manifestations, and of its functions in human life. 3 s.h.  
 PROFESSOR PATTERSON

211. PLATO.—Undergraduate prerequisite: Philosophy 93. 3 s.h.  
PROFESSOR PATTERSON
212. HISTORY OF MODERN PHILOSOPHY.—3 s.h. ASSISTANT PROFESSOR PEACH
213. HISTORY OF AESTHETICS.—Theories of art and beauty from Pythagoras to Croce. 3 s.h.
217. ARISTOTLE.—Undergraduate prerequisite: Philosophy 93. 3 s.h.  
PROFESSOR PATTERSON
218. MEDIEVAL PHILOSOPHY.—A study of the philosophy of the Middle Ages with special attention to selected texts from the works of Christian, Jewish, and Arabian philosophers. 3 s.h.  
PROFESSOR PATTERSON
223. CONTEMPORARY PHILOSOPHY: IDEALISM.—Examination and analysis of the idealist position in recent and contemporary philosophy, with special attention to the works of Bradley and Jordan. 3 s.h.  
PROFESSOR NEGLEY
224. CONTEMPORARY PHILOSOPHY: REALISM.—A critical analysis, comparison, and evaluation of the several varieties of recent realistic theories, presentative and representative. 3 s.h.  
PROFESSOR BAYLIS
225. BRITISH EMPIRICISM: LOCKE, BERKELEY, HUME.—3 s.h.
231. PHILOSOPHY OF SCIENCE.—A historical and critical survey of the basic philosophical ideas underlying the development of modern science. 3 s.h.
232. SPECIAL PROBLEMS IN PHILOSOPHY OF SCIENCE.—Investigation by students of advanced problems in philosophy of science with special attention to a field determined by student's interest. 3 s.h.
236. ORIENTAL PHILOSOPHY.—A study of the genesis of philosophical ideas in the Upanishads and the Bhagavadgita, and of the development of the orthodox systems and of the philosophies of the Jains and the Buddhists. 3 s.h.  
PROFESSOR PATTERSON
241. LOGIC.—Fundamental principles of valid deductive reasoning. 3 s.h.
242. SCIENTIFIC METHODOLOGY.—A survey of the methods used in the various natural and social sciences. 3 s.h.
250. PHILOSOPHICAL ANALYSIS.—A critical study of recent and contemporary essays in philosophical analysis, and an evaluation of the nature, methods, and results of this movement. 3 s.h.  
PROFESSOR BAYLIS
251. SEMINAR: EPISTEMOLOGY.—3 s.h.  
PROFESSOR BAYLIS
252. SEMINAR: METAPHYSICS.—3 s.h.  
PROFESSOR BAYLIS
- FOR GRADUATES
307. SEMINAR: KANT.—3 s.h.  
PROFESSOR NEGLEY
308. SEMINAR: HEGEL.—3 s.h.  
PROFESSOR NEGLEY
- 331, 332. SPECIAL FIELDS OF PHILOSOPHY.—Directed reading and research in specialized fields not intensively covered by the course curriculum; intended primarily for Ph.D. candidates. 3 s.h.  
STAFF
- 350, 351. SEMINAR IN THE TEACHING OF PHILOSOPHY.—Required of all candidates for the Ph.D. degree in Philosophy. Discussion of the problems of teaching philosophy at the undergraduate level. Practice teaching in undergraduate discussion sections. 1 s.h.  
STAFF

## PHYSICS

PROFESSOR NIELSEN, CHAIRMAN—119 PHYSICS BUILDING; ASSOCIATE PROFESSOR GREULING, ACTING DIRECTOR OF GRADUATE STUDIES—213 PHYSICS BUILDING; PROFESSORS HATLEY, GORDY, NEWSON, NORDHEIM, SPONER, AND LONDON; ASSOCIATE PROFESSOR FAIRBANK; ASSISTANT PROFESSORS LEWIS AND BLOCK

The Department of Physics offers graduate work leading to the A.M. and Ph.D. degrees. Course work is designed to give a broad basic foundation in classical

and modern physics. All graduate students will be expected to acquire a thorough knowledge of the various branches of classical physics and some familiarity with modern physics and with basic laboratory skills. They will be required to take such course work in the 200 number courses as may be necessary to obtain this foundation.

The student will be required to take such course work as will best be adapted to the kind of work he will subsequently specialize in and to the kind of research he will undertake. The choice of minor will be similarly determined.

Since a practical reading knowledge of French and German is highly desirable for the student of physics, he should satisfy these language requirements as early as possible.

For 1953-54 the courses planned are: 201-202, 213-214, 217-218, 219, 220, 265-266, 303-304, 318-319, 323, 331, 341, 343, 351-352, 353-354.

#### FOR SENIORS AND GRADUATES

201-202. MECHANICS.—The fundamental principles of Newtonian mechanics; general dynamics of systems of particles, and rigid bodies; the methods of Lagrange and Hamilton; generalized mechanics. Prerequisite: Physics 125. 6 s.h.

ASSISTANT PROFESSOR BLOCK

203-204. ELECTRICITY AND MAGNETISM.—Fundamentals of electricity and magnetism. Electrostatics and magnetostatics. Direct current circuits, and networks—bridges, potentiometers, galvanometers, alternating current circuits and networks. Electromagnetic waves. 6 s.h.

205. SPECTROSCOPY.—The theory of optical instruments and a discussion of spectroscopic laws and of information obtained by spectroscopic methods. Three lectures and one three-hour laboratory each week. 4 s.h.

PROFESSOR SPONER

213-214. CONTEMPORARY PHYSICS.—A course which covers the fundamental concepts and the experimental basis of modern physics. Three lectures each week. 6 s.h.

ASSISTANT PROFESSOR LEWIS

217-218. ADVANCED PHYSICS LABORATORY.—Measurements involving the fields of mechanics, electricity, magnetism, heat, sound, optics, and modern physics. 2-6 s.h.

THE STAFF

219. INTRODUCTION TO ELECTRONICS.—Fundamentals of electron tubes. Motion of charged particles, space charge, gaseous conduction. Electron tube circuits. Three hours of lecture and one three-hour laboratory per week. 4 s.h.

PROFESSOR GORDY

220. ELECTRON CIRCUIT ANALYSIS.—Linear and non-linear circuit analysis, electric oscillations, operation of filters, Fourier analysis of wave phenomena, coupling in electrical circuits. 3 s.h.

PROFESSOR GORDY

265-266. CHEMICAL PHYSICS. STATISTICAL THEORY.—General introduction to statistical mechanics and applications to chemical problems; solution theory, reaction velocity, changes of state, quantum statistics and the metallic state. Lectures, conferences, and assigned problems. 6 s.h.

PROFESSOR LONDON

267-268. CHEMICAL PHYSICS. QUANTUM THEORY OF ATOMIC AND MOLECULAR STRUCTURES.—Theory of atomic and molecular forces and the structure of matter. Lectures, conferences, and assigned problems. 6 s.h.

PROFESSOR LONDON

#### FOR GRADUATES

303-304. THERMODYNAMICS AND STATISTICAL MECHANICS.—Fundamental laws of thermodynamics and statistical mechanics with applications to physics and chemistry. Gas laws; transport phenomena; elements of quantum statistics. 6 s.h.

ASSOCIATE PROFESSORS FAIRBANK AND GREULING

306. LOW TEMPERATURE PHYSICS.—A study of the properties of matter near the absolute zero of temperature; superconductivity, liquid helium, adiabatic demagnetization. Prerequisite: Physics 303. 3 s.h.

ASSOCIATE PROFESSOR FAIRBANK



308. MECHANICS OF CONTINUOUS MEDIA.—Mechanics of deformable bodies. Statics and dynamics of elastic and fluid media. Prerequisite: Physics 201-202. 3 s.h. PROFESSOR NORDHEIM

315-316. PRINCIPLES OF QUANTUM THEORY.—Original and fundamental concepts of quantum theory; wave and matrix mechanics; theory of measurements; exclusion principle and electronic spin. Prerequisite: Physics 201-202. 6 s.h. PROFESSOR NORDHEIM

318-319. ELECTROMAGNETIC FIELD THEORY.—Electrostatics and potential theory; dielectric and magnetic media; the magnetic field of currents and the law of induction. Maxwell's electrodynamics; theory of wave optics; refraction; interference, and diffraction. Crystal optics. Prerequisite: Physics 126, 175. 6 s.h. ASSOCIATE PROFESSOR GREULING

320. THEORY OF ELECTRONS.—Lorentz' equations of electrodynamics. Classical theories of dispersion, magnetism, and conductivity. Theory of relativity. Prerequisite: Physics 318-319. 3 s.h. ASSOCIATE PROFESSOR GREULING

323. THEORY OF ATOMIC SPECTRA.—Excitation of spectra, computation of wave lengths from photographs of spectra, study of the structure of atomic spectra with applications. 3 s.h. PROFESSOR SPONER

324. THEORY OF MOLECULAR SPECTRA.—A study of the structure of molecular spectra with applications. 3 s.h. PROFESSOR SPONER

331. MICROWAVE RADIATION.—Microwave generators, cavity resonators, transmission lines, radiation propagation and detection. 4 s.h. PROFESSOR GORDY

335. MICROWAVE SPECTROSCOPY.—Application of microwaves in the determination of molecular, atomic, and nuclear properties. Stark and Zeeman effects in microwave spectroscopy. Magnetic resonance absorption. 3 s.h. PROFESSOR GORDY

340. STRUCTURE OF MATTER.—Selected topics dealing with the constitution of matter, such as crystal structure and x-rays, the solid state and problems of molecular structure. 3 s.h. PROFESSOR SPONER

341. ADVANCED TOPICS IN QUANTUM THEORY.—Quantum theory of radiation and collisions with special reference to nuclear and high energy physics. Prerequisite: Physics 315-316. 3 s.h. PROFESSOR NORDHEIM

343. NUCLEAR PHYSICS.—Elementary theory of the deuteron; low energy neutron proton scattering; theory of nuclear reactions; penetration of potential barriers; nuclear energy levels. Prerequisite: Physics 315. 3 s.h. PROFESSOR NEWSON

344. ADVANCED NUCLEAR PHYSICS.—The deuteron, nuclear forces, scattering of elementary particles, beta-radiation. Other aspects of nuclear physics susceptible to theoretical interpretation. Prerequisite: Physics 343. 3 s.h. PROFESSOR NORDHEIM

351-352. SEMINAR.—A series of weekly discussions on topics related to the research projects under investigation in the Department. 2 s.h. STAFF

353-354. THESIS SEMINAR.—Students who are properly qualified may carry on research work under the direction of members of the staff. 6 s.h. STAFF

## POLITICAL SCIENCE

PROFESSOR RANKIN, CHAIRMAN—308 LIBRARY; PROFESSOR WILSON, DIRECTOR OF GRADUATE STUDIES—405 NEW TOWER LIBRARY; PROFESSORS COLE, CONNERY, HALLOWELL, AND VON BECKERATH; VISITING PROFESSORS ROBSON, WESTPHALEN, AND ZINK

The Department of Political Science offers graduate work leading to the A.M. and Ph.D. degrees. Instruction is designed to prepare the student for teaching, for government service, and for other work related to public affairs. Before undertaking graduate study in Political Science, a student is ordinarily expected to have completed at least 12 semester hours of course work in political science, including some work in American government.



Fields of political science in which instruction is at present offered for candidates for the degree of Doctor of Philosophy are the following: American Government and Constitutional Law; Comparative Government; Political Theory; American State and Local Government; International Law; Public Administration. Candidates for the degree of Doctor of Philosophy who propose to major in political science must elect five fields, including Comparative Government and Political Theory; at least one of the five fields must be taken in a department other than the Department of Political Science.

In 1953-54 the courses planned are 207, 209, 221, 223, 224, 225, 226, 227-228, 229, 230, 231, 235, 241, 242, 246, 271, 291, 310, 321, 325, 328, and 341.

#### FOR SENIORS AND GRADUATES

207. AMERICAN CONSTITUTIONAL LAW AND THEORY.—A study of leading principles of American government, as developed through judicial interpretation of the Constitution. 3 s.h.

PROFESSOR RANKIN

209. PROBLEMS IN STATE AND LOCAL GOVERNMENT IN THE UNITED STATES.—A study of the historical development of state and local governments, their present organizations and subdivisions, and their relation to each other. Special attention is given to the position of the states in the federal union through the study of federal-state, inter-state, and state-local relations. 3 s.h.

PROFESSOR RANKIN

211. POLITICAL INSTITUTIONS OF THE FAR EAST.—A study of the governmental systems of Japan, Korea, and China from the Chou Dynasty to the present. 3 s.h.

212. INTERNATIONAL POLITICS OF THE FAR EAST.—A study of changing power relationships in the Orient since the arrival of the Europeans. 3 s.h.

221. INTERNATIONAL PUBLIC ORGANIZATION.—A study of the structure and functioning of the United Nations organs, of related specialized agencies such as the International Labor Organization, and of regional agencies such as the Organization of American States. 3 s.h.

PROFESSOR WILSON

223. POLITICAL THOUGHT TO THE SEVENTEENTH CENTURY.—A survey from the time of Plato to the close of the seventeenth century; Graeco-Roman, Patristic and Germanic thought; individualism and cosmopolitanism; effect of the Church-State controversy and the conciliar movement; medieval constitutionalism; legislative sovereignty. 3 s.h.

PROFESSOR WILSON

224. MODERN POLITICAL THEORY.—An historical survey and philosophical analysis of political theory from the beginning of the seventeenth to the middle of the nineteenth century. Attention is given to the rise of liberalism, the age of Enlightenment, the romantic and conservative reaction, idealism and utilitarianism. 3 s.h.

PROFESSOR HALLOWELL

225. COMPARATIVE GOVERNMENT.—A comparative study of modern political institutions with particular attention to European constitutional government and politics. 3 s.h.

PROFESSOR COLE AND VISITING PROFESSOR ROBSON

226. COMPARATIVE GOVERNMENT.—A comparative study of modern political institutions with particular attention to European authoritarian and dictatorial government and politics. 3 s.h.

PROFESSOR COLE AND VISITING PROFESSOR ZINK

227-228. INTERNATIONAL LAW.—Elements of international law, particularly as interpreted and applied by the United States; rights and duties of states with respect to recognition, state territory and jurisdiction, nationality, diplomatic and consular relations, treaties, treatment of aliens, pacific settlement of disputes, international regulation of the use of force, and collective security. 6 s.h.

PROFESSOR WILSON

229. RECENT AND CONTEMPORARY POLITICAL THEORY.—The rise of positivism and its impact upon modern political thought, the origins of socialism, Marxism and its variants, socialism in the Soviet Union, nationalism, Fascism and National Socialism, the crisis in modern democracy, Christianity and the social order. 3 s.h.

PROFESSOR HALLOWELL

230. AMERICAN POLITICAL INSTITUTIONS.—A study of the formation and development of institutions of the national government in the United States, with historical and analytical treatment. Among other topics this course is concerned with the Constitutional Convention of 1787, and the development of Congress, the Presidency, and the Supreme Court. 3 s.h.  
 PROFESSOR RANKIN

231. AMERICAN POLITICAL THEORY.—An analysis of the main currents in American political thought from colonial beginnings to the present day, with emphasis upon the development of liberalism in America. 3 s.h.  
 PROFESSOR HALLOWELL

235. THE BRITISH COMMONWEALTH.—An analysis of the political relationships between the members of the Commonwealth and a comparative study of the governments of the Dominions, with particular reference to Canada. 3 s.h.  
 PROFESSOR COLE AND VISITING PROFESSOR ZINK

241. ADMINISTRATIVE MANAGEMENT.—An advanced course in public administration with special attention being given to the development of scientific management, its application to government in the United States and a consideration of current problems in organization, procedures, work simplification, and management improvement. 3 s.h.  
 PROFESSOR CONNERY

242. NATIONAL ADMINISTRATION.—A study of the administrative organization, working concepts and procedures of the United States Government, illustrated through the operations of the Bureau of the Budget. 3 s.h.  
 PROFESSOR CONNERY

246. GOVERNMENT ADMINISTRATION AND PUBLIC POLICY.—Through use of the laboratory and case study techniques, a consideration of the types of administrative problems that the United States Government encounters in the field of public policy, and their possible solution. 3 s.h.  
 PROFESSOR CONNERY

252. SPANISH-AMERICAN CONSTITUTIONALISM.—A comparative study of the nature, sources, and use of political authority in the constitutional law of Argentina, Chile, Colombia, and Uruguay. 3 s.h.

271. SOCIOPOLITICS AND CAPITALISM.—Labor and labor policies in Western Europe and the United States in the nineteenth and twentieth centuries; the development of monopoly power and political power of labor in recent decades. 3 s.h.  
 PROFESSOR VON BECKERATH

272. CONTEMPORARY EUROPEAN LABOR PROBLEMS.—An introduction to contemporary labor problems of Central Europe with particular emphasis on the effect of communist political pressure on the labor movement. 3 s.h.  
 VISITING PROFESSOR WESTPHALEN

291. PROBLEMS OF MUNICIPAL GOVERNMENT.—An analysis of problems relating to the structural system and activities of municipalities in the United States. 3 s.h.  
 PROFESSOR RANKIN

292. MUNICIPAL ADMINISTRATION.—A study of principles and methods relating to municipal administration in the United States. 3 s.h.  
 PROFESSOR RANKIN

#### FOR GRADUATES

301-302. DEPARTMENTAL GRADUATE SEMINAR.—An introduction to research methodology, inter-disciplinary relationships and current research problems. Required of all graduate students in Political Science. No credit.

PROFESSORS WILSON, RANKIN, COLE, HALLOWELL, CONNERY, OTHER  
 MEMBERS OF THE FACULTY, AND VISITING LECTURERS

310. SEMINAR IN STATE GOVERNMENT.—Open to students who have completed course 209 or its equivalent. 3 s.h.  
 PROFESSOR RANKIN

311. SEMINAR IN FAR EASTERN POLITICS.—Open to students who have completed course 211 or its equivalent. 3 s.h.

321. SEMINAR IN POLITICAL THEORY.—Open to students who have completed 6 semester hours in Political Science 223, 224, 229, 231 or their equivalents. 3 s.h.  
 PROFESSOR HALLOWELL

325. SEMINAR IN COMPARATIVE GOVERNMENT.—Open to students who have completed courses 225 and 226 or their equivalents. 3 s.h. PROFESSOR COLE

328. SEMINAR IN INTERNATIONAL LAW.—Open to students who have completed course 227-228 or its equivalent. 3 s.h. PROFESSOR WILSON

341. SEMINAR IN PUBLIC ADMINISTRATION.—Open to students who have completed courses 241 and 242 or their equivalents. 3 s.h. PROFESSOR CONNERY

372. SEMINAR IN CONTEMPORARY EUROPEAN SOCIAL PROBLEMS.—2 s.h. VISITING PROFESSOR WESTPHALEN

#### RELATED COURSES IN OTHER DEPARTMENTS

Economics 215, 216, 233, 234, 237-238, 365; History 215-216, 217-218, 233-234, 261-262; Philosophy 208; Religion 224, 394; Sociology 382.

### PSYCHOLOGY

PROFESSOR RODNICK, CHAIRMAN—107 BIVINS HALL; PROFESSOR ZENER, DIRECTOR OF GRADUATE STUDIES—205 PSYCHOLOGICAL LABORATORY; PROFESSOR RODNICK, DIRECTOR OF CLINICAL TRAINING; PROFESSORS ADAMS, DAI, KUDER, AND LUNDHOLM; ASSOCIATE PROFESSORS BANHAM, KIMBLE, AND KOCH; ASSISTANT PROFESSORS COHEN, COLLIER, FILER, GARMEZY, AND GUTTMAN

The Department of Psychology offers advanced work in general experimental psychology leading to the A.M. and Ph.D. degrees and in clinical psychology leading to the Ph.D. only.

Whatever the field of psychology in which a student eventually specializes, he is required to have a thorough background in the facts, methods, and theories of general psychology. Graduate programs are arranged to achieve this common background primarily during the first year, with specialization in course work reserved for subsequent years.

Normally, the candidate for the Ph.D. degree is expected, by the end of his second year, in addition to having worked out a program of studies, to have passed his language examinations, a departmental qualifying examination in his area of intended doctoral research, and the preliminary examination. By this time also his doctoral dissertation subject should be formulated. Emphasis is laid upon the completion of the dissertation, directed by a member of the staff, demonstrating the competence and independence in the investigation of an original and significant problem.

As an integral part of their academic work during the first, second and fourth years, students specializing in clinical psychology will undertake field work in a variety of clinical settings. In addition, they will normally spend the third year in an appropriate and approved internship. The fourth year will be spent in residence at Duke University to complete the dissertation.

The field of minor work is not restricted, but it may be pointed out that the fields most relevant to graduate study in psychology are sociology and anthropology, physiology, neuroanatomy, philosophy of science, mathematics, and education.

Further details concerning the program of studies in psychology may be obtained from the Director of Graduate Studies in Psychology.

For 1953-54 the courses planned are 201-202, 203, 206, 209, 212, 215, 221-222, 223 (second semester only), 265, 266, 302, 303-304, 305, 306, 308, 309, 310, 312, 313, 320, 322, 335-336, 341, 371.

#### FOR SENIORS AND GRADUATES

201-202. PROSEMINAR.—An integrated core curriculum in general psychology, designed to provide an advanced background in the principles, and the empirical and theoretical methods, of the major fields of psychology. The topics include: scientific methods in psychology, biological foundations of behavior, motivation, learning, perception, behavior development, personality, the social determinants of behavior, and contemporary psychological theories. Required of all first year students. 9 s.h. each semester.

PROFESSORS ADAMS, KUDER, LUNDHOLM, RODNICK, AND ZENER;  
ASSOCIATE PROFESSORS BANHAM, KOCH, AND KIMBLE;  
ASSISTANT PROFESSORS COLLIER AND GUTTMAN

203. DYNAMIC PSYCHOLOGY: CONATION AND OUR CONSCIOUS LIFE.—A systematic presentation of the psychology of adult human achievements, adaptive as well as creative, with emphasis upon the significance of these endeavors of the acts of experiencing. 3 s.h. PROFESSOR LUNDHOLM

206. SOCIAL PSYCHOLOGY.—Kinds of membership character; psychology of social movements; propaganda; revolution; nationalism; war. 3 s.h. PROFESSOR ADAMS

209. EXPERIMENTAL METHODS IN PSYCHOLOGY.—A study of methods for the identification, control, and recording of essential variables in psychological situations, with emphasis upon the relation of experimental techniques to problem formulation. Laboratory, lectures, and discussions. 3 s.h. PROFESSOR ZENER AND ASSISTANT PROFESSOR GUTTMAN

212. PHYSIOLOGICAL PSYCHOLOGY.—An advanced study of the interrelationships between psychological and physiological processes. 3 s.h. ASSISTANT PROFESSOR GUTTMAN

215. DEVELOPMENTAL PSYCHOLOGY.—The environmental forces conditioning the development of personality structure and the mechanisms contributing to psychological growth; critical periods in character formation from infancy to senescence. 3 s.h. PROFESSOR ADAMS

221-222. PROPRACTICUM.—Lectures, demonstrations and practice in the use of basic procedures, projective and non-projective, employed in clinical psychology; principles of interpretation and reporting of test findings. Laboratory periods will be held in clinical field facilities. 3 s.h. each semester. ASSISTANT PROFESSOR GARMEZY AND CLINICAL STAFF

223. ABNORMAL PSYCHOLOGY.—A systematic presentation of the psychology of functional mental disorders with emphasis on its bearing upon general psychological theory. 3 s.h. PROFESSOR LUNDHOLM

224. PSYCHOLOGY OF AESTHETICS.—3 s.h. PROFESSOR LUNDHOLM

226. PSYCHOLOGY: HISTORICAL AND THEORETICAL.—3 s.h. PROFESSOR ZENER

236. THEORETICAL PSYCHOLOGY.—This course is devoted to the analysis of techniques of theory construction in psychology. The discussion of these methodological issues is co-ordinated with the analysis of concrete formulations in contemporary psychological theory. 3 s.h. ASSOCIATE PROFESSOR KOCH

265. FUNDAMENTAL STATISTICAL PROCEDURES IN PSYCHOLOGY.—An introduction to the topics of distribution functions, large and small sample analyses, analysis of variance and experimental design. Prerequisite: Psychology 120 or equivalent. 3 s.h. [Second semester only.] ASSISTANT PROFESSOR COLLIER

266. ADVANCED STATISTICS OF PSYCHOLOGICAL INVESTIGATION.—A continuation of Psychology 265 with the treatment of the following topics: non-parametric methods, correlation, multiple and partial correlation, and curve fitting. Prerequisite: Psychology 265. 3 s.h. ASSISTANT PROFESSOR COLLIER

305. PSYCHOPATHOLOGY.—An examination of behavior disorders, with particular emphasis on explanatory concepts and the evidence from research in this field. 3 s.h. PROFESSOR RODNICK

306. SEMINAR IN DEVELOPMENTAL PSYCHOLOGY.—2 or 3 s.h. PROFESSOR ADAMS

308. SEMINAR IN PSYCHOPATHOLOGY AND PERSONALITY THEORY.—3 s.h. PROFESSOR RODNICK

309. THEORY OF LEARNING.—3 s.h. PROFESSOR ADAMS

310. SEMINAR: SELECTED PROBLEMS IN THE DYNAMICS OF BEHAVIOR.—3 s.h. PROFESSOR ZENER

312. SEMINAR IN THEORETICAL PSYCHOLOGY.—3 s.h. ASSOCIATE PROFESSOR KOCH



313. ADVANCED EXPERIMENTAL METHODS: SELECTED PROBLEMS.—This course provides intensive practical experience in problems of experimental design and technique. Each student will work on an individual research project under the guidance of the staff. Issues related to such research, and to general questions of experimental methodology, will be dealt with in seminar-type discussions. 3 s.h.  
 PROFESSORS RODNICK AND ZENER; ASSOCIATE PROFESSOR KOCH

320. SEMINAR IN THE THEORY OF MENTAL TESTS.—3 s.h.

PROFESSOR KUDER

322. SEMINAR IN PERSONNEL PSYCHOLOGY.—3 s.h.

PROFESSOR KUDER

335-336. CLINICAL PSYCHOLOGY PRACTICUM.—Seminar discussion and supervised field experience in the application of basic psychological procedures and principles to clinical cases in a variety of institutional settings. Prerequisite: Psychology 221 and 222. 3 s.h. fall semester, 6 s.h. spring semester.

ASSISTANT PROFESSOR COHEN AND CLINICAL STAFF

341. SOCIETY, CULTURE AND BEHAVIOR DISORDERS.—A critical survey of current theories of the structure and genesis of psychoneurosis, with particular stress on psychoneurotic disturbances as problems of the self in relation to society and culture. 3 s.h.

PROFESSOR DAI

342. PRINCIPLES OF PSYCHOTHERAPY.—A critical study of the current methods of treating behavior disorders, such as brief psychoanalytic therapy, non-directive methods and group procedures. Stress is laid on integration of the best workable procedures into a set of psychotherapeutic principles in a socio-psychological frame of reference as discussed in Psychology 341, which is a prerequisite: Case material will be used for purposes of illustration. 3 s.h.

PROFESSOR DAI

371. PRE-SCHOOL BEHAVIOR PROBLEMS.—3 s.h.

ASSOCIATE PROFESSOR BANHAM

#### RELATED COURSES IN OTHER DEPARTMENTS

Education 208A, 208B, 209, 217, 227, 228, 258, 318; Philosophy 203, 208, 223, 224, 232, 242, 301, 331-332a; Sociology 212, 238, 243, 246, 249, 271, 276, 330, 380; Zoology 229, 324, 341, 351-352, 355-356; Physiology 261-262; Anatomy 204.

## RELIGION

PROFESSOR SMITH, DIRECTOR OF GRADUATE STUDIES—308 DIVINITY SCHOOL; PROFESSORS BEACH, CLARK, CUSHMAN, DAVIES, PETRY, AND STINESPRING; ASSISTANT PROFESSORS BROWNLEE AND SCHAFFER

The Department of Religion offers graduate work leading to the A.M. and Ph.D. degrees. Students may major in one of three fields: (1) Biblical Studies; (2) Studies in Church History; and (3) Studies in Christian Thought. They will be expected to take such courses in one or both of the other fields as will conduce to an adequate understanding of their chosen fields of specialization.

In addition to course work in these major fields, students will take such other courses in cognate fields as will contribute to the enrichment of their major studies. For those majoring in Biblical Studies, courses in Ancient Language and Literature are suggested; for those majoring in Church History, courses in History are suggested; and for those majoring in Studies in Christian Thought, courses in Philosophy, Political Science, and Sociology are suggested.

Students who intend to become candidates for the Ph.D. degree should take the required language examinations in both French and German not later than the beginning of the second year of residence.

For 1953-54 the courses planned are 201-202, 207-208, 217, 218, 220, 301, 310, 311, 312, 313, 314, 316, 317, 318, 319, 332, 224, 321, 323, 324, 325, 326, 328, 329, 391-392, 393, 394, 395, 396, 397, 398.

### FIELD I. BIBLICAL STUDIES

201-202. FIRST HEBREW.—The principles and structure of the Hebrew language with translation of selected Old Testament narratives. 6 s.h.

PROFESSOR STINESPRING



205-206. ARABIC.—Introduction to the classical language and literature with some attention to the modern idiom. Hours to be arranged. 6 s.h.

PROFESSOR STINESPRING

207-208. SECOND HEBREW.—Samuel or Kings the first semester and Isaiah the second. 6 s.h.

ASSISTANT PROFESSOR BROWNLEE

217. THE NEW TESTAMENT IN GREEK.—Extensive reading of the Greek text of the New Testament, with special emphasis upon its interpretation. 3 s.h.

PROFESSOR CLARK

218. GALATIANS AND I CORINTHIANS.—A detailed study of two of Paul's major epistles, based on the Greek text. 3 s.h.

PROFESSOR DAVIES

220. I PETER AND THE GOSPEL OF JOHN.—A detailed study of two of the non-Pauline writings of the New Testament. The course will be based on the Greek text. Prerequisite: 6 s.h. study of the Greek language. 3 s.h.

PROFESSOR DAVIES

301. THE RELIGIOUS THOUGHT OF POST-EXILIC JUDAISM.—A study of the development of religious ideas in Post-Exilic Judaism. 3 s.h.

ASSISTANT PROFESSOR BROWNLEE

304. ARAMAIC.—A study of the Aramaic portions of the Old Testament, and selected passages from the Targums, Midrashes, and Talmuds. Hours to be arranged. 3 s.h.

PROFESSOR STINESPRING

305. THIRD HEBREW.—A study of late Hebrew prose, with readings from Chronicles, Ecclesiastes, and the Mishnah. Hours to be arranged. 3 s.h.

PROFESSOR STINESPRING

307. SYRIAC.—A study of the script and grammar, with readings from the Syriac New Testament and other early Christian documents. Some knowledge of Hebrew and Aramaic prerequisite. 3 s.h.

PROFESSOR STINESPRING

309. HISTORY OF THE ANCIENT NEAR EAST.—A specialized study of the civilizations of Egypt, Palestine, Syria, and Mesopotamia in light of Biblical archaeology. 3 s.h.

PROFESSOR STINESPRING

310. OLD TESTAMENT PROPHECY.—The prophetic movement in Israel with special emphasis on the prophets of the eighth century B.C. 3 s.h.

PROFESSOR STINESPRING

311. THE LIFE AND TEACHINGS OF JESUS.—A study of the events and sayings of the historical Jesus, in the light of his mission. 3 s.h.

PROFESSOR CLARK

312. NEW TESTAMENT THEOLOGY.—An examination of the central aspects of New Testament theology. 3 s.h.

PROFESSOR DAVIES

313. THE APOSTOLIC FATHERS.—A study of the Christian development from Clement of Rome to Polycarp (90-155 A.D.), with readings in the Greek text. 3 s.h.

PROFESSOR CLARK

314. PATRISTIC THOUGHT.—A study of the development of early Christian doctrine to the period of Irenaeus. 3 s.h.

PROFESSOR DAVIES

316. HELLENISTIC RELIGIONS.—A study of the Gentile religions in the Roman Empire, at the beginning of the Christian era. 3 s.h.

PROFESSOR CLARK

317. THE SYNOPTIC GOSPELS.—A detailed study of their characteristics and contents, based upon the Greek text, with attention to their respective sources and to the development of synoptic criticism. 3 s.h.

PROFESSOR CLARK

318. TEXTUAL CRITICISM OF THE NEW TESTAMENT.—A study of the scientific recovery of the Greek text on which modern versions are based; manuscript discoveries; principles of textual criticism; practice in collating original manuscripts in the Duke collection. 3 s.h.

PROFESSOR CLARK

319. PAUL AND RABBINIC JUDAISM.—A special study of the relation of Judaism and early Christianity. 3 s.h.

PROFESSOR DAVIES

## RELATED COURSES IN OTHER DEPARTMENTS

Greek 257; Latin 258; Aesthetics, Art, and Music 215, 216.

## FIELD II. STUDIES IN CHURCH HISTORY

330. THE CHURCH IN EUROPE SINCE 1800.—Emphasis is placed on the relation of the Church to the social, economic, and political life of Modern Europe. 3 s.h. PROFESSOR PETRY

331. THE SOCIAL MESSAGE OF THE EARLY AND MEDIEVAL CHURCH.—A study of the social teachings and contributions of the Christian Church prior to the Protestant Reformation. 3 s.h. PROFESSOR PETRY

332. THE MEDIEVAL CHURCH.—Outstanding characteristics of the Medieval Church, emphasizing theory, polity, institutions, sacraments, and worship. 3 s.h. PROFESSOR PETRY

334. CHURCH REFORMERS AND CHRISTIAN UNITY.—The work of such reformers as Marsilius of Padua, William of Ockham, John Gerson, Pierre d'Ailly, and Nicholas of Cusa in relation to ecclesiastical schism and the search for Christian unity through representative councils. 3 s.h. PROFESSOR PETRY

336. HISTORY OF CHRISTIAN RENUNCIATION IN THE MIDDLE AGES.—A study of the renunciatory ideal and spiritual practices with special reference to Benedictines, Franciscans, Lowland Mystics, and leading seculars. 3 s.h. PROFESSOR PETRY

## RELATED COURSES IN OTHER DEPARTMENTS

History 221-222, 225-226; Ancient Languages and Literatures 257-258.

## FIELD III. STUDIES IN CHRISTIAN THOUGHT

224. CONCEPTIONS OF MAN IN WESTERN THOUGHT.—An analysis and interpretation of important types of philosophical and theological theory concerning man with a view to critical evaluation and construction. 3 s.h. PROFESSOR CUSHMAN

321. PLATONISM AND CHRISTIANITY.—An analysis of Plato's religious philosophy and a survey of its continuing influence in Hellenistic and Christian thought. 3 s.h. PROFESSOR CUSHMAN

322. THEOLOGY AND PHILOSOPHY IN THE NINETEENTH CENTURY.—A study of Protestant thought from Schleiermacher to Troeltsch together with representative theologians of Britain, with special attention to the reciprocal relations between theology and metaphysics. 3 s.h. PROFESSOR CUSHMAN

323. HISTORY OF CHRISTIAN THOUGHT I.—An historical study of theology in the ancient and medieval church. 3 s.h. ASSISTANT PROFESSOR SCHAFER

324. HISTORY OF CHRISTIAN THOUGHT II.—An historical study of theology from the Reformation. 3 s.h. ASSISTANT PROFESSOR SCHAFER

325. PHILOSOPHICAL THEOLOGY I.—Analysis and critique of dominant types of contemporary world-views for the formulation of the problem of philosophical theology. Main problems in the history of philosophical theology. 3 s.h. PROFESSOR CUSHMAN

326. PHILOSOPHICAL THEOLOGY II.—Historical and constructive approach to the problem of faith and reason, God and evil. 3 s.h. PROFESSOR CUSHMAN

328. SEMINAR IN 20TH CENTURY CONTINENTAL AND BRITISH THEOLOGY.—Critical examination of the thought of Barth, Brunner, Berdyaev, Maritain, F. R. Tennant, and William Temple. 3 s.h. PROFESSOR CUSHMAN

329. SEMINAR IN HISTORICAL THEOLOGY.—Selected problems in the history of Christian thought, with special reference to the relation between theology and philosophy. 2 s.h.

391-392. HISTORICAL TYPES OF CHRISTIAN ETHICS.—A critical study of representative documents of Christian ethical theory. 6 s.h. PROFESSOR BEACH

393. THE CHRISTIAN INTERPRETATION OF HISTORY.—A comparative examination of the chief secular and Christian theories of history current in Western thought. 3 s.h. PROFESSOR BEACH

394. CHRISTIANITY AND THE STATE.—The relation of the Christian theory of the State to political problems, with special consideration of the religious assumptions underlying democratic theory and practice. 3 s.h. PROFESSOR BEACH

395. RELIGIOUS THOUGHT IN COLONIAL AMERICA.—Consideration of the principal types of Protestant thought in colonial culture. 3 s.h. PROFESSOR SMITH

396. AMERICAN RELIGIOUS THOUGHT IN THE NINETEENTH CENTURY.—Comparative exposition of Orthodoxy and Liberalism. 3 s.h. PROFESSOR SMITH

397. CURRENT AMERICAN THEOLOGY.—Critical appraisal of conflicting tendencies in American theological thought. 3 s.h. PROFESSOR SMITH

398. MODERN AMERICAN CHRISTOLOGY.—An analysis of the historical development of modern American conceptions of the person and work of Christ. 3 s.h. PROFESSOR SMITH

495. SEMINAR: JONATHAN EDWARDS AND JOHN WESLEY.—A comparative study of the major theological works of Edwards and Wesley. 2 s.h. PROFESSOR SMITH

498. SEMINAR: REINHOLD NIEBUHR AND PAUL TILLICH.—An analysis and appraisal of the theological thought of Niebuhr and Tillich. 2 s.h. PROFESSOR SMITH

#### RELATED COURSES IN OTHER DEPARTMENTS

Political Science 229, 231.

#### OTHER COURSES

Certain other courses listed in this bulletin and the *Bulletin of the Divinity School* may be taken for graduate credit provided that at the time of registration they are approved by the Director of Graduate Studies in Religion and by the Dean of the Graduate School.

## ROMANCE LANGUAGES

PROFESSOR JORDAN, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES—214 CARR; VISITING LECTURER KENISTON; PROFESSORS PREDMORE AND WALTON; ASSOCIATE PROFESSORS CASTELLANO AND DAVIS; ASSISTANT PROFESSOR DEMOREST

The Department of Romance Languages offers graduate work leading to the A.M. and Ph.D. degrees. In order to undertake graduate study in this Department, the student should normally have credit for four years of college courses in the chosen language, or 18 semester hours beyond the conventional two units offered at entrance to college. In addition to this minimum requirement, the student should have had one semester of review in composition and grammar.

It is recommended that candidates for the A.M. degree take a second Romance Language as the minor subject.

A candidate for the Ph.D. degree should be equipped to follow graduate courses in a second Romance Language. For this degree some training in Romance Linguistics will be required, the amount to be determined by the Department upon consideration of the student's preparation in the field.

Graduate students in this Department will be required to maintain oral practice in their major language through non-credit exercises provided by the Department.

For 1953-54 there will be offered throughout the year at least three courses in each language.

## ROMANCE LANGUAGES

## FRENCH

## FOR SENIORS AND GRADUATES

210. THE AGE OF RICHELIEU.—An introduction to French life and thought in the literature of the early seventeenth century. The transition from the Renaissance to classical culture. Discussions of the baroque, the *Libertins*, the scientific rationalists, the Counter Reformation. Extensive reading in Corneille and Pascal. Lectures in French. 3 s.h. ASSISTANT PROFESSOR DEMOREST

213. FRENCH CLASSICISM.—Its initial phase. Readings from Malherbe, Molière, Racine, Boileau, La Fontaine, La Rochefoucauld, Madame de Sévigné, La Bruyère, and others. 3 s.h. PROFESSOR WALTON

214. FRENCH CLASSICISM.—Its final phase. Readings from Fontenelle, Saint-Simon, Abbé Prévost, Marivaux, Lesage, Montesquieu, Voltaire, and others. Main emphasis on Voltaire. 3 s.h. PROFESSOR WALTON

215-216. THE MODERN FRENCH NOVEL.—A survey of the novel form from the seventeenth to the twentieth century, with particular attention to the analysis of fundamental literary trends; classicism, rationalism, romanticism, and realism. 6 s.h. PROFESSOR JORDAN

219. OLD FRENCH.—An introduction to the Old French language and literature. The *Chanson de Roland* and *Aucassin et Nicolette*. 3 s.h.

220. OLD FRENCH.—Types of Old French literature. The *lais* of Marie de France, Chrétien de Troyes and the Arthurian Romance, the *roman d'aventure*, the *Roman de la rose*, and the *Roman de Renard*. Readings and lectures. 3 s.h.

227. FRENCH POETRY SINCE THÉOPHILE GAUTIER.—Readings from the principal figures of the Parnassian and Symbolist movements, including Baudelaire, Leconte de Lisle, Heredia, Verlaine, Rimbaud, Mallarmé and Régnier. 3 s.h. PROFESSOR WALTON

238. ANATOLE FRANCE.—Analysis of the principal phases of his work and its relation to the French tradition. Reading of his poetry, *Le Crime de Sylvestre Bonnard*, *Thaïs*, *Le Jardin d'Epicure*, *Les Dieux ont soif*, *Le Lys Rouge*, *L'Île des Pingouins*, parts of *La Vie Littéraire*. 3 s.h. PROFESSOR WALTON

## FOR GRADUATES

323-324. REALISM AND NATURALISM.—Literary doctrines and practices in the generation of 1850-90, with particular reference to the background of scientific thinking. 6 s.h. PROFESSOR JORDAN

325-326. FRENCH LITERATURE IN THE SIXTEENTH CENTURY.—Main attention is given to Rabelais, Montaigne, Marot, Ronsard, Du Bellay. Principal movements treated are: Humanism, Hellenism, Platonism, Petrarchism, the *Pléiade*. 6 s.h. PROFESSOR WALTON

333-334. CONTEMPORARY FRENCH LITERATURE.—The twentieth century is examined mainly with reference to the originality of its contribution in the domain of ideas and literary forms. Only the leading figures are read extensively: Rolland, Gide, Proust, Duhamel, Valéry. 6 s.h. PROFESSOR JORDAN

350. NINETEENTH-CENTURY FRENCH CRITICISM.—A survey of critical doctrines and practices from Sainte-Beuve to the end of the century, including Brunetière, Faguet, Lemaître, France, Doumic and others. 3 s.h. PROFESSOR JORDAN

## SPANISH

## FOR SENIORS AND GRADUATES

257. OLD SPANISH LANGUAGE.—The historical development of the language together with illustrative readings. 3 s.h. ASSOCIATE PROFESSOR DAVIS

258. OLD SPANISH LITERATURE.—The literature of the Middle Ages and Early Renaissance. 3 s.h. ASSOCIATE PROFESSOR DAVIS

260. ADVANCED COMPOSITION AND SYNTAX.—Study of fundamental difficulties in the language; practice in writing idiomatic Spanish; exercises in free



composition. For students who have a satisfactory command of Spanish grammar and fair conversational ability. Prerequisite: Spanish 173-174 or permission. 3 s.h.

ASSOCIATE PROFESSOR CASTELLANO

261-262. MODERN SPANISH NOVEL.—The evolution of the novel from the *costumbrista* writers through the generation of 1898. 6 s.h.

264. MODERN AND CONTEMPORARY SPANISH THEATER.—A brief review of the modern and contemporary Spanish Theater from the period of Romanticism. Lectures, reading and discussion of the most representative works of Benavente, Martínez Sierra, los hermanos Quintero, etc. 3 s.h.

ASSOCIATE PROFESSOR CASTELLANO

265. GOLDEN AGE LITERATURE: CERVANTES.—The life and thought of Cervantes with special emphasis on his *Quijote*. 3 s.h.

PROFESSOR PREDMORE

266. GOLDEN AGE LITERATURE: THE DRAMA.—Study of the chief Spanish dramatists of the seventeenth century with readings of representative plays of this period. 3 s.h.

ASSOCIATE PROFESSOR CASTELLANO

275. CONTEMPORARY SPANISH LITERATURE.—Essay and Lyric Poetry. A study of the revision of national values and literary expression in the twentieth century with particular reference to the crisis of 1898 and to the enrichment of the Spanish tradition through extra-peninsular influences. 3 s.h.

PROFESSOR PREDMORE

276. CONTEMPORARY SPANISH LITERATURE.—Novel. A study of tradition and innovation in the twentieth century Spanish novel with emphasis on the novels of Unamuno, Baroja, Valle Inclán, and Pérez de Ayala. 3 s.h.

PROFESSOR PREDMORE

285. THE EARLY RENAISSANCE IN SPAIN (1474-1550).—The major aspects studied are: humanism, reformation and counter-reform, the beginnings of the theater, the Italianate poets, the impact of the New World, architecture and the arts. 3 s.h.

PROFESSOR KENISTON

286. THE LATER RENAISSANCE IN SPAIN (1550-1600).—The novel—chivalric, pastoral, picaresque, the emergence of the *comedia*, the ballads, the mystics, lyric poets, literary theory, architecture and the arts. 3 s.h.

PROFESSOR KENISTON

## SOCIOLOGY AND ANTHROPOLOGY

PROFESSOR JENSEN, CHAIRMAN—215E SOCIAL SCIENCE BUILDING; PROFESSOR HART, DIRECTOR OF GRADUATE STUDIES—215D SOCIAL SCIENCE BUILDING; PROFESSOR THOMPSON; ASSOCIATE PROFESSORS LABARRE AND SCHETTLER

The Department of Sociology and Anthropology offers graduate work leading to the A.M. and Ph.D. degrees. Before undertaking advanced work in this department, a student must have completed a minimum of twelve semester hours of approved preliminary courses in the field, and twelve additional semester hours in the field or in related work. A student who is deficient in the minimum required work will be asked to take additional undergraduate courses agreed upon in conference with the Director of Graduate Studies.

Candidates for advanced degrees in Sociology usually take minor work in Psychology, Economics, Political Science, Education, History, or Religion. Detailed requirements for the minor work, and for majors in other departments who wish to present Sociology as minor work, may be obtained from the Director of Graduate Studies.

The courses planned for 1953-54 are 212, 213, 214, 215, 217, 233, 235, 237, 238, 243, 246, 250, 271, 273, 276, 286, 288, 292, 293, 330, 340, 380, 381, 391, 393. Either 91-92, 101, 111 or 112 is prerequisite for all courses.

### ANTHROPOLOGY

212. PRIMITIVE RELIGION.—The ethnography, the social functions and the socio-psychological meanings of religion in primitive societies. (To be offered first semester, 1953-54.) 3 s.h.

ASSOCIATE PROFESSOR LABARRE



213. **PERSONALITY AND SOCIETY.**—The sociology and social psychology of human personality, its origins in the primary group, its nature and varieties and its integrations into secondary group institutions. 3 s.h.

ASSOCIATE PROFESSOR LABARRE

214. **PERSONALITY AND CULTURE.**—The influence of culture patterns and social institutions upon character structure, socialization of the individual, and the dynamics of human personality. Comparative anthropological materials will be drawn upon. Prerequisite: course 213. 3 s.h.

ASSOCIATE PROFESSOR LABARRE

(Admission to 213 and 214 only by consultation with the instructor.)

215. **THE AMERICAN INDIAN.**—A comprehensive survey of the Indians of North and South America, including a study of origins and prehistory, archaeology, physical anthropology, languages, material culture, social and political organization, economics and religion, discussed in terms of the "culture area" concept, and illustrated with the ethnography of a characteristic tribe from each area. 3 s.h.

ASSOCIATE PROFESSOR LABARRE

217. **THE PEOPLES OF AFRICA, ASIA, AND OCEANIA.**—A comprehensive survey of the non-European peoples of the Old World, covering available prehistory, archaeology, racial affiliations, languages, material culture, social and political organization, economics, and religion, discussed in terms of the "culture area" concept, and illustrated with the ethnography of a characteristic tribe from each area. 3 s.h.

ASSOCIATE PROFESSOR LABARRE

330. **SEMINAR IN ANTHROPOLOGY.**—A seminar for advanced students who wish to pursue individual studies in racial or cultural anthropology. 1 to 3 s.h. *each semester.*

ASSOCIATE PROFESSOR LABARRE

### COMMUNITY, RACE AND CULTURE

233. **RURAL SOCIOLOGY.**—The sociology of the land; peasant and folk societies and cultures; patterns of rural settlement like the farm, the plantation, the ranch and others; rural personality types; the changing character of rural life; rural problems. 3 s.h. Second semester.

PROFESSOR THOMPSON

235. **URBAN SOCIOLOGY.**—A study of the city and civilization, the newspaper, the social survey, the slum and housing, neighborhoods and neutral areas, urban institutions, urban problems, and city planning. 3 s.h.

PROFESSOR THOMPSON

237. **COMMUNITY AND SOCIETY.**—This course seeks to provide a frame of reference for the analysis and ordering of facts pertaining to the diverse cultures of the world, the State, the world community, the Great Society, news, mass behavior, social problems, races and classes. 3 s.h.

PROFESSOR THOMPSON

238. **RACE AND CULTURE.**—A study of the nature of race and of the relationships and problems of race. 3 s.h.

PROFESSOR THOMPSON

340. **SEMINAR.**—Methodological problems involved in the study of race relations, urban and rural life, the South and society generally. 3 s.h. *first semester.*

PROFESSOR THOMPSON

### COLLECTIVE BEHAVIOR

243. **SOCIAL ATTITUDES AND COLLECTIVE BEHAVIOR.**—Study of attitudes as products of social interaction; organization of attitudes into personal behavior patterns, expression of social attitudes in social, political and industrial groups; social unrest and the behavior of crowds and mobs; analysis of social movements, strikes, revolutions, and other group organizations. 3 s.h.

ASSOCIATE PROFESSOR SCHETTLE

246. **PUBLIC OPINION AND PROPAGANDA.**—Nature and development of public opinion; relation to attitudes, biases, stereotypes and controversial issues; role of leaders, pressure groups and minority groups; use of radio, press, motion picture and graphic arts; propaganda and censorship; measurements of public opinion. 3 s.h.

ASSOCIATE PROFESSOR SCHETTLE

249. **CHILD WELFARE.**—A study in heredity and environment as factors in personality development; infant conservation; welfare responsibilities of the school,

emphasizing the physical and mental well-being of the child, play, and compulsory and industrial education; child labor, diagnosis and treatment of delinquency; care of the dependent and neglected child; child-caring agencies, public and private; and a community program of child welfare. [*Offered in the Summer Session, 1953.*] 3 s.h.  
 PROFESSOR HART

250. MARRIAGE AND THE FAMILY.—An analysis of contemporary marriage and family experience with emphasis on its functions, problems, resources and values. Not open to students who have received credit for Religion 170. 3 s.h. (*first semester.*)  
 PROFESSOR HART

#### SOCIAL ORGANIZATION AND DISORGANIZATION

271. SOCIAL PATHOLOGY.—A study of the causes, extent, significance, and constructive treatment of the principal forms of pathology in modern society; natural disasters, poverty, physical defectiveness, malnutrition, mental deficiency, mental disease, undirected leisure activities and unstandardized commercial recreation, alcoholism, prostitution, vagrancy, and delinquency. (Not open to students who have had Sociology S274.) 3 s.h.  
 PROFESSOR JENSEN

273. SPECIAL PROBLEMS IN SOCIAL PATHOLOGY.—Research projects in social and personal disorganization, limited to advanced students with the approval of the instructor. 1 to 3 s.h. *each semester.*  
 PROFESSOR JENSEN

276. CRIMINOLOGY.—A study of the original tendencies of man and the problem of socializing these tendencies; the relation of physical and mental defectiveness and untoward influence in the home and neighborhood to crime; the development of criminological theory and procedure, emphasizing penal and reform methods, and especially modern methods of social treatment and prevention of crime. 3 s.h.  
 PROFESSOR JENSEN

377. SEMINAR IN MEDICAL SOCIOLOGY.—The basic principles of the various medical specialties as applied to the problems of marriage and the family. Open only to graduate students in sociology, with the consent of the instructor and of the Director of Graduate Studies. Given by the Staff of the Medical School under the direction of Dr. Bayard Carter, M.D. 2 s.h.

278. SEMINAR IN FAMILY LAW.—A seminar approach to the efforts of the social sciences, including law, to deal with the intricate and perplexing problems of the modern family. Readings are assigned in legal and sociological material. 2 s.h.  
 PROFESSOR BRADWAY

380. SEMINAR IN APPLIED SOCIOLOGY.—Special research problems in social pathology, child welfare, criminology, and related topics. 1 to 3 s.h. *each semester.*  
 PROFESSOR JENSEN

#### SOCIAL THEORY

286. SOCIAL ETHICS.—A study of sociological fundamentals underlying ethics, including the controversy between materialistic and idealistic social thinkers, the nature of personalities and of social organization, the nature of social values, types of social interaction and their effects upon general social values, underlying principles and facts of social change, and the bearings of all these upon certain social problems. 3 s.h.  
 PROFESSOR HART

288. CONTEMPORARY PROBLEMS IN CULTURAL LAG.—An exploration of such sociological problems as social evolution, cultural lag, conflict, accommodation, leadership, and social reform, in relation to the crisis of civilization precipitated by the development of the atomic bomb and by kindred discoveries and inventions. 3 s.h.  
 PROFESSOR HART

381. PRINCIPLES OF SOCIOLOGY.—A critical study of sociological theory. The sociological theories of recent writers will be critically examined with a view to laying the foundation for a constructive theory of the social life in modern biology and psychology. Discussions and papers by the class. 3 s.h.  
 PROFESSOR JENSEN

382. HISTORY OF SOCIOLOGICAL THEORY.—Lectures on the development of social thought from Aristotle to the present; the social philosophies of Plato,

Aristotle, St. Augustine, Thomas Aquinas, Machiavelli, Bodin, Hobbes, Locke, Vico, Montesquieu, Rousseau, Condorcet, and the sociological systems of Conte, Spencer, Schäffle, Lilienfeld, Gumplowicz, Ratzenhofer, and Ward will, among others, be considered. A large amount of assigned reading will be required in this course. The student is advised to correlate this course with related courses in economics, history, political science, and philosophy. 3 s.h. PROFESSOR JENSEN

### METHODS OF SOCIAL RESEARCH

292. STATISTICAL TECHNIQUES IN SOCIOLOGY.—Intended for graduate students, and for undergraduates who are ready to undertake original statistical research projects. 3 s.h. (*first semester*.) PROFESSOR HART

293. SPECIAL PROBLEMS IN SOCIAL STATISTICS.—Applications of statistical techniques to specific research topics; limited to advanced students with permission of the instructor. 1 to 3 s.h. PROFESSOR HART

391. SEMINAR IN SOCIAL STATISTICS.—Special research problems in social statistics, social ethics, the family or related topics. 1 to 3 s.h. PROFESSOR HART

393. OPERATIONAL SOCIOLOGY.—A seminar for advanced students, presenting an operational philosophy of social science as a basis for research in sociology. Examples of operational procedure will be analyzed. Assigned projects will embody applications of the operational method. Prerequisite: one of the following: Sociology 292 or Economics 237-238, or Education 209, or Mathematics 124, or some other acceptable course in statistics. 3 s.h. PROFESSOR HART

396. METHODS OF SOCIAL RESEARCH.—A critical appraisal of the various methods of research and investigation that can be applied to the study of sociological phenomena. 3 s.h. PROFESSOR JENSEN

399. DEPARTMENTAL SEMINAR.—Research work upon special problems in sociology and anthropology. 1 s.h.

PROFESSORS JENSEN, HART, AND THOMPSON; ASSOCIATE PROFESSORS SCETTTLER AND LABARRE

### RELATED COURSES IN OTHER DEPARTMENTS

Economics 215, 216, 217; Philosophy 205; Political Science 223, 224; Psychology 206.

## ZOOLOGY

PROFESSOR GRAY, CHAIRMAN—218 BIOLOGY BUILDING; PROFESSOR WILBUR, DIRECTOR OF GRADUATE STUDIES—328 BIOLOGY BUILDING; PROFESSORS EMERITI HARGITT AND PEARSE; PROFESSOR SCHMIDT-NIELSEN; ASSOCIATE PROFESSORS BOOKHOUT, HUNTER, ROBERTS, AND WHARTON; ASSISTANT PROFESSORS HORN AND NACE

To undertake study toward an advanced degree in zoology a student should have completed an undergraduate major in zoology or its equivalent. This normally amounts to twenty-four or more hours of course work distributed among various fields of zoology, and must include comparative vertebrate anatomy or vertebrate zoology, embryology, and physiology. At least a year of chemistry is required. Physics is recommended. Candidates for the doctorate will be expected to have had not less than two years of chemistry and a year of botany. For some phases of zoology, organic chemistry is essential.

Required work for the A.M. ordinarily includes 18 semester hours of advanced course work in zoology, six semester hours of course work in a minor department, and an acceptable thesis.

Candidates for the Ph.D. degree are expected to be broadly trained zoologists. The program of each candidate is determined by a committee which reviews previous training and sets specific requirements to be met. Normally the program includes one or more graduate courses in each of several fields of zoology; courses in a minor subject; wide reading in science in general and in biology in particular; research; and a dissertation based on original work. A first draft of the thesis

must be submitted to the major professor by March 15 of the year in which the degree is to be conferred.

For 1953-54 the courses planned are 204, 224, 252, 253, 271, 278, 303, 307, 328, 351-352, 353-354, 355-356.

FOR SENIORS AND GRADUATES

202. **HELMINTHOLOGY.**—Classification, morphology and host relations of parasitic worms. Lectures, readings, reports and laboratory work. Prerequisite: Zoology 161. 4 s.h. ASSOCIATE PROFESSOR HUNTER

204. **ADVANCED PARASITOLOGY.**—Lectures, conferences, readings, and laboratory work dealing with practical and theoretical matters relating to animal parasites. Prerequisite: Zoology 161. 4 s.h. ASSOCIATE PROFESSOR WHARTON

222. **ENTOMOLOGY.**—Anatomy, physiology, embryology, and classification of insects. Prerequisite: one year of zoology. 4 s.h. PROFESSOR GRAY

224. **VERTEBRATE ZOOLOGY.**—A study of the life histories, adaptations, ecology, and classification of vertebrate animals. Prerequisite: Zoology 53. 4 s.h. PROFESSOR GRAY

229. **ENDOCRINOLOGY.**—The structure, physiology, and embryology of the endocrine glands. Lectures, reading assignments, reports, and laboratory work. Prerequisites: Zoology 53, and 92. 4 s.h.

238. **SYSTEMATIC ZOOLOGY.**—The fundamental theory and practice involved in the collection, identification and classification of animals. Prerequisite: Zoology 1 and 2. 4 s.h. ASSOCIATE PROFESSOR WHARTON

252. **COMPARATIVE PHYSIOLOGY.**—The physiological mechanisms of animals studied on a comparative basis. Prerequisite: Zoology 151 or equivalent. 4 s.h. PROFESSOR SCHMIDT-NIELSEN

253. **ADVANCED VERTEBRATE MORPHOLOGY.**—Lectures, reports and reading assignments in the comparative morphology of the vertebrates, with particular emphasis on theories concerning the interrelationships of vertebrates, and the origin of certain vertebrate structures. Advanced laboratory study in selected groups of vertebrates. Prerequisites: Zoology 53, 92. 4 s.h. ASSISTANT PROFESSOR HORN

271. **CELLULAR PHYSIOLOGY.**—The physiological processes of living matter approached through studies of cells. Prerequisites: two years of biology and at least one year of chemistry. 4 s.h. PROFESSOR WILBUR

274. **INVERTEBRATE ZOOLOGY.**—A study of structure, functions, and habits of invertebrate animals under normal and experimental conditions. Field trips will be made to study, collect, and classify animals in their natural habitats. Prerequisites: Zoology 1 and 2. 4 s.h. ASSOCIATE PROFESSOR BOOKHOUT

276. **PROTOZOOLOGY.**—The morphology, physiology, taxonomy, and culture of protozoa. Prerequisites: Zoology 1 and 2. 4 s.h. ASSOCIATE PROFESSOR BOOKHOUT

278. **INVERTEBRATE EMBRYOLOGY.**—Lectures, readings and laboratory work dealing with rearing, development and life history of invertebrates. Prerequisite: Zoology 92. 4 s.h. ASSOCIATE PROFESSOR BOOKHOUT

FOR GRADUATES

303. **ECOLOGY.**—Relation of animals to environment. Lectures, readings, reports, conferences; laboratory and field work. 4 s.h. PROFESSOR GRAY

306. **ADVANCED ECOLOGY.**—Lectures, conferences, field work, and methods. Prerequisite: Zoology 303. 4 s.h.

307. **FOUNDATIONS OF ZOOLOGY.**—Lectures, readings, and discussions on the background and training essential for a professional zoologist. 2 s.h. STAFF

324. **ADVANCED PHYSIOLOGY.**—Recent advances in Physiology. Lectures, conferences and laboratory work. Prerequisite: Zoology 252 or 271. 4 s.h. PROFESSORS SCHMIDT-NIELSEN AND WILBUR



328. EXPERIMENTAL EMBRYOLOGY.—Lectures, readings, reports and laboratory work. Prerequisites: Zoology 53, 92, 156, 271, or equivalent. 4 s.h.

ASSISTANT PROFESSOR NACE

341. HISTORICAL ZOOLOGY.—Readings and discussions. A critical study of the developments of modern biological concepts and theories, their past and present significance. 2 s.h.

PROFESSOR HARGITT

343. CYTOLOGY.—The structure of the cell. Lectures, readings, reports and laboratory work. Prerequisites: Zoology 53, 92, 156, or equivalent. 4 s.h.

ASSOCIATE PROFESSOR ROBERTS

351-352. ZOOLOGICAL JOURNAL CLUB.—A weekly meeting of graduate students and Faculty to hear reports and to discuss biological facts, theories, and problems. One hour a week throughout the year. Required of all graduate students who major in zoology. 2 s.h.

STAFF

353-354. RESEARCH.—Students who have had proper training may carry on research under direction of members of the Staff in the following fields. Hours and credits to be arranged.

(a) EMBRYOLOGY.

ASSISTANT PROFESSOR NACE

(b) PHYSIOLOGY.

PROFESSORS SCHMIDT-NIELSEN AND WILBUR

(c) HISTOLOGY, CYTOLOGY.

ASSOCIATE PROFESSOR ROBERTS

(d) INVERTEBRATE ZOOLOGY, INVERTEBRATE HISTOLOGY AND EMBRYOLOGY.

ASSOCIATE PROFESSOR BOOKHOUT

(e) ECOLOGY, ENTOMOLOGY, VERTEBRATE ZOOLOGY.

PROFESSOR GRAY

(f) VERTEBRATE MORPHOLOGY AND MORPHOGENESIS.

ASSISTANT PROFESSOR HORN

(g) PARASITOLOGY.

ASSOCIATE PROFESSORS HUNTER AND WHARTON

355-356. SEMINAR.—One or more seminar courses in particular fields are given by various members of the Staff. These will be in the fields indicated under courses 353-354 above. 2 s.h.

## COURSES IN THE MEDICAL SCHOOL OPEN TO GRADUATE STUDENTS

PROFESSORS BEARD, F. BERNHEIM, CONANT, EADIE, EVERETT, HALL, HANDLER, HETHERINGTON, MARKEE, D. T. SMITH, AND TAYLOR; ASSOCIATE PROFESSORS M. L. C. BERNHEIM, DUKE, MCCREA, PEELE, PENROD, RUNDLES, AND SCHWERT

The facilities of the several Departments of the Medical School listed below are available to qualified graduate students, already admitted to the Graduate School, for independent or supervised research and investigation, whether or not they are working toward advanced degrees.

Graduate students wishing to pursue a major or minor in any of the following departments, or to enroll in any of the courses listed below, should consult or write the appropriate Director of Graduate Studies: Anatomy, Professor J. E. Markee; Microbiology, including Mycology, Parasitology and Hematology, Professor D. T. Smith; Biochemistry and Nutrition, Professor Philip Handler; Physiology and Pharmacology, Professor F. G. Hall.

Because of the special schedules maintained in the Medical School, graduate students should write the Director of Graduate Studies of the department in which they are interested to ascertain the precise dates when courses are offered.

### ANATOMY

Completion of training equivalent to that required of an undergraduate majoring in biology is prerequisite for these courses in human anatomy.

M201. GROSS HUMAN ANATOMY.—A course especially designed for graduate students, comprising a complete dissection of the cadaver. The laboratory work is supplemented by conferences which place emphasis on the biological aspects of the



subject. Oct.-Feb. Hours and credits (maximum 8 s.h.) by arrangement. Prerequisite: adequate training in comparative anatomy and embryology.

PROFESSOR MARKEE AND STAFF

**M202. MICROSCOPIC ANATOMY.**—Conferences and laboratory work on the morphological characteristics of the tissues of the animal body. The work is based upon a study of fresh and prepared material and is approached from the physiological viewpoint. Oct.-Feb. Hours and credits (maximum 3 s.h.) by arrangement. Prerequisite: adequate training in histology or cytology.

PROFESSOR MARKEE AND STAFF

**M203. ANATOMY OF THE NERVOUS SYSTEM.**—A study of the gross and microscopic structure of the human central nervous system, special attention being paid to the structural and functional relationships between the various nuclei and fiber tracts. Oct.-Feb. Hours and credits (maximum 4 s.h.) by arrangement. Prerequisite: Anatomy M201.

PROFESSOR MARKEE AND STAFF

**M204. NEUROANATOMICAL BASIS OF BEHAVIOR.**—A study of the gross and microscopic anatomy of the nervous system with emphasis on the structural and functional relationships between tracts, nuclei, and cortical areas. In so far as possible the result of deficit in a system or systems will be demonstrated by motion picture aids and the mechanisms involved will be reviewed and discussed. Restricted to graduate students with the equivalent of a major in Psychology. 3 s.h.

PROFESSOR HETHERINGTON

**M312. RESEARCH.**—Individual investigations in the various fields of Anatomy. Credits to be arranged.

PROFESSORS MARKEE, EVERETT, HETHERINGTON;

ASSOCIATE PROFESSORS PEELE AND DUKE

## BIOCHEMISTRY AND NUTRITION

The program of graduate studies in biochemistry is designed primarily for Ph.D. candidates who intend to pursue a research career in this field. Candidates for the A.M. degree only are not encouraged to apply for admission and are accepted only under exceptional conditions. Preference is given to students who have completed one year of graduate work in chemistry, physics, or biology at Duke University or at some other approved institution. As preparation for courses in advanced chemistry, the student must have completed college courses in analytical geometry and elementary calculus. He also must have had adequate preparation for the reading examination in French and German, which is required of candidates for the Ph.D. degree.

**M241. GENERAL BIOCHEMISTRY AND NUTRITION.**—Three lectures, four laboratory periods of three hours each, one two-hour seminar weekly for eighteen weeks. Prerequisites: general chemistry, organic chemistry, physical and analytical chemistry, and at least one year of college biology. Feb.-June. 8 s.h.; without laboratory work, 3 s.h.

PROFESSORS HANDLER AND TAYLOR; ASSOCIATE PROFESSORS

M. L. C. BERNHEIM AND SCHWERT; AND DR. KAMIN

**M242. BIOCHEMICAL PREPARATIONS.**—Laboratory work with conferences when necessary. This course involves detailed study of the chemistry of enzymes, proteins, fats, carbohydrates and derivatives. Prerequisite: Biochemistry M241 or its equivalent. Hours by arrangement. 2, 3, or 4 s.h.

PROFESSOR HANDLER; ASSOCIATE PROFESSORS M. L. C. BERNHEIM AND SCHWERT

**M341. THEORIES AND METHODS OF PHYSICAL BIOCHEMISTRY.**—A lecture and seminar course devoted to basic physical concepts and experimental methods in the study of biological compounds and systems. With demonstrations. Given alternately with M343-344. 2 s.h.

ASSOCIATE PROFESSOR SCHWERT

**M343-344. BIOCHEMISTRY OF PROTEINS AND ENZYMES.**—A lecture and seminar course devoted to the chemical, physical and biological properties of proteins and enzymes. In the first semester, general aspects of protein chemistry will be considered, whereas in the second semester specific proteins and enzyme systems will be reviewed. Given alternately with M341. 4 s.h.

ASSOCIATE PROFESSOR SCHWERT

M345-346. SEMINAR.—Required of all graduate students majoring in biochemistry, one hour per week. 2 s.h.

PROFESSORS HANDLER AND TAYLOR; ASSOCIATE PROFESSORS  
M. L. C. BERNHEIM AND SCHWERT

M347-348. BIOCHEMICAL RESEARCH.—A laboratory course in which the students are introduced to specialized concepts and methods currently employed in biochemical research. This will be accomplished by rotating assignment of the students to the various special laboratories of the department. Prerequisite: Biochemistry M241 or its equivalent. 2, 3, or 4 s.h.

PROFESSORS HANDLER AND TAYLOR; ASSOCIATE PROFESSORS  
M. L. C. BERNHEIM AND SCHWERT

M349-350. INTERMEDIARY METABOLISM.—A seminar course devoted to a study of the detailed mechanisms of carbohydrate, fat and protein metabolism. Given alternately with Biochemistry M351-352. Prerequisite: Biochemistry M241 or its equivalent. 4 s.h.

PROFESSOR HANDLER

M351. NUTRITION.—A seminar course in which the chemical and physiological behavior of essential nutritional factors is considered, as well as the nature of deficiency states. Prerequisite: Biochemistry M241 or its equivalent. Given alternately with Biochemistry M349-350. 2 s.h.

PROFESSOR HANDLER

M354. BIOCHEMISTRY OF DISEASE.—A lecture and seminar course in the biochemical aspects of the pathogenesis, diagnosis, and therapy of diseases of metabolism. 2 s.h.

PROFESSOR HANDLER

### MICROBIOLOGY

M221. BACTERIOLOGY AND IMMUNOLOGY.—This course is devoted primarily to the study of the biological and immunological relationships of microorganisms (bacteria, fungi, Rickettsia, and viruses) in disease. It is not a course in bacteriologic technique. An additional course in technical methods is provided for those who require it. Five lectures, two 1-hour conferences and three laboratory periods of 3 hours each weekly, in fall quarter. Prerequisites: courses in general zoology, general botany, histology and comparative anatomy, general and organic chemistry. 6 s.h.

PROFESSOR D. T. SMITH AND STAFF

M322. IMMUNOCHEMISTRY.—A seminar dealing with the fundamentals of immunological reactions in general and with the chemistry of antigen-antibody reactions in particular. 2 s.h.

M323. ADVANCED BACTERIOLOGY AND IMMUNOLOGY.—This course is intended primarily for graduate students majoring in bacteriology, but it is also available as a minor to other graduate students in related fields, to whom it is recommended by respective supervising committees and with the approval of the Department of Bacteriology. Prerequisites: Bacteriology and Immunology, M221. 8 s.h.

PROFESSOR D. T. SMITH AND STAFF

M324. RESEARCH SEMINAR ON VIRUSES.—Limited to advanced students. 2 s.h. per semester.

PROFESSOR BEARD

M325. MEDICAL MYCOLOGY.—This course is intended to familiarize the graduate student, majoring in mycology, with the fungi causing disease in man and animals. The course includes practical laboratory work with materials from patients in Duke Hospital and that sent to the Duke Fungus Registry from outside sources. Prerequisites: A.M. in Botany with Major in Mycology and M221. Course limited to four students each year. 8 s.h.

PROFESSOR CONANT

### HEMATOLOGY

M211. Three lectures and three laboratory periods of 3 hours each, weekly, for eleven weeks in the spring quarter. Prerequisites: courses in general zoology, general botany, histology and comparative anatomy. 4 s.h.

ASSOCIATE PROFESSOR RUNDLES

### MEDICAL PARASITOLOGY

M291. MEDICAL PARASITOLOGY.—One lecture and one three-hour laboratory period per week for eleven weeks during the fall quarter. Prerequisites: courses in Zoology 204, general botany, histology and comparative anatomy. 1 s.h.

## PHYSIOLOGY AND PHARMACOLOGY

M261-262. HUMAN PHYSIOLOGY.—Six lectures and twenty laboratory hours per week. Prerequisites: Anatomy M201 and Biochemistry M241 (or equivalents) and at least one year of college physics. Feb.-June. Credits depending on work taken. (Maximum 8 s.h.) PROFESSOR HALL AND STAFF

M341. HISTORY OF BIOLOGICAL SCIENCES.—Readings and discussions. A critical study of the developments of modern biological concept and theories, and their significance in present-day science. 2 s.h. PROFESSOR HARGITT

M365. RESPIRATION AND AERO-PHYSIOLOGY.—A study of the fundamental respiratory processes in living organisms, and of the special physiological responses and adjustments of the individual during high altitude flight. Lectures, conferences, laboratory. Prerequisites: M261-262 or equivalent. 4 s.h. PROFESSOR HALL

M367. PHYSIOLOGY OF THE NERVOUS SYSTEM.—Presentation of the fundamental processes of nervous tissue and of the integration of these functions in man. Lectures, conferences, and laboratory. Prerequisites: M261-262 or equivalent. 2 s.h. PROFESSOR EADIE

M369. PHARMACOLOGY. MODE OF ACTION OF DRUGS.—Studies and discussions of the pharmacological action of drugs in terms of biochemical and physiological processes. Lectures, conferences, and laboratory. Prerequisites: M261-262 or equivalent. 4 s.h. PROFESSOR F. BERNHEIM

M370. SEMINAR.—A weekly meeting of graduate students and staff in which papers reviewing classical and current physiological literature are reported. Required of all graduate students who are candidates for the A.M. or Ph.D. degree. 2 s.h. PROFESSOR HALL AND STAFF

M372. RESEARCH.—Individual investigations in the various fields of physiology. Credits to be arranged. STAFF

# ADVANCED DEGREES CONFERRED JUNE 2, 1952

## MASTER OF ARTS

Allen, William Francis  
Bailey, Ruby May  
Barnes, Donald Bishop  
Basso, Milla Young  
Bauerle, Ruth Hawkins  
Beers, Burton Floyd  
Brandon, Elvis Denby, Jr.  
Carpenter, Dewey K.  
Castor, Charles Robert  
Cheek, Frances Gowans  
Chen, Tien Chi  
Christison, Isabel B.  
Coles, William Jeffrey  
David, Farilla Bode  
Davis, Wilma Marvette  
Downs, Murray Scott  
Gale, Glen Roy  
Garcia-Bottari, Rafael Enrique  
Harden, Nell  
Henchie, Janet Hamilton  
Jones, Martha Elizabeth

Kardon, Samuel  
Kilberg, Edward J.  
Layton, Frank Leon  
Noggle, Burl Lee  
Pierce, John Arthur  
Pohrer, Robert George  
Ramsey, Robert Wayne  
Robertson, Clyde Henry, Jr.  
Schaller, Aileen Lewis  
Slaughter, Grimes Gibbons  
Smith, Calvin Clifton  
Smith, Richard Clark  
Smythe, William Rodger, Jr.  
Stanford, Stephen Dunlap  
Stewart, Alva Theodore, Jr.  
Ward, William Edward, III  
Whitaker, Shirley Blue  
Williams, William Augustus, Jr.  
Wills, Wirt Henry  
Winston, Anthony  
Young, James Joseph

## MASTER OF EDUCATION

Box, Klay Kenneth Keith  
Butler, Dorothy May

Kirtley, Anne

## DOCTOR OF EDUCATION

EASTERLING, HENRY BENJAMIN, M.A., University of Alabama; B.S., Mississippi Southern College.  
Dissertation: *Developing a Program of Education for Exceptional Children in New Hanover County.*

LYLES, JAMES ROBERT, JR., A.B., Wofford College; M.A., University of South Carolina.  
Dissertation: *The Organization for the Development and Administration of the Educational Program of the Charlotte (N. C.) City School System.*

## DOCTOR OF PHILOSOPHY

ANDERSON, NORMAN GULACK, A.B., A.M., Duke University.  
Dissertation: *Studies on Isolated Mammalian Somatic Cell Nuclei.*

BARGER, BENJAMIN, B.A., George Washington University.  
Dissertation: *Anxiety as a Determinant of Differential Responsivity to Reward and Punishment.*

BARLOW, JOHN ALFRED, A.B., Oberlin College.  
Dissertation: *Secondary Motivation Through Classical Conditioning.*

BATSON, WADE THOMAS, JR., B.S., Furman University; A.M., Duke University.  
Dissertation: *The Floristics of the Fredell Soil Series in the Central Piedmont of North Carolina.*

BEATSON, JAMES ALLEN, A.B., A.M., Duke University.  
Dissertation: *The Portion of the Peacemaker, Wilson, House, Lansing and the Quest for a Negotiated Peace, August 1914-February 1917.*

BELLAMY, VIRGINIA NELLE, B.S., East Tennessee State Teachers College; A.M., Duke University.  
Dissertation: *Monastic Life and Discipline in the Diocese of Lincoln, 1420-1449, Studied from Episcopal Registers and Visitation Records.*

BIRGE, WILLIAM ROOT, A.B., Princeton University.  
Dissertation: *An Experimental Inquiry into the Measurable Handwriting Correlates of Five Personality Traits.*

BORMANN, FREDERICK HERBERT, B.S., Rutgers University; A.M., Duke University.  
Dissertation: *Factors Determining the Role of Loblolly Pine and Sweetgum in Early Old-Field Successions.*

BREWSTER, JAMES PENDLETON, A.B., A.M., Duke University.  
Dissertation: *Initial Conditions for Differential Systems.*

BUCHANAN, EDITH, A.B., Meredith College.  
Dissertation: *The Italian Neo-Senecan Background of Samson Agonistes.*

CHAFFEE, ELMER F., B.S., University of Idaho; M.S.P.H., University of North Carolina.  
Dissertation: *Quantitative Determination of Complement Activity as Conditioned by Temperature at which Test Serum Is Preheated.*

CUNNINGHAM, NOBLE E., JR., B.A., University of Louisville; A.M., Duke University.  
Dissertation: *The Jeffersonian Party to 1801: A Study of the Formation of a Party Organization.*



- CURRY, ROY WATSON, A.B., Marshall College; M.A., West Virginia University.  
Dissertation: *Woodrow Wilson and the Far East*.
- FLANSBURGH, CLARA JULINA, A.B., Maryland College; A.M., Middlebury College.  
Dissertation: *The Historicity of Alfred de Vigny's Cinq-Mars*.
- GODFREY, ROBERT KENNETH, A.B., Maryville College; M.S., North Carolina State College; A.M., Harvard University.  
Dissertation: *Pluchea, Section Stylinus, in North America, the Bahama Islands and the Greater Antilles*.
- GORDON, HIRAM LANDOR, A.B., University of Wichita; A.M., University of Kansas.  
Dissertation: *A Comparative Study of Dream Analysis and the Thematic Apperception Test as Projective Techniques*.
- GREENHOW, CHARLES RICHARD, B.S.E.E., M.S., North Carolina State College.  
Dissertation: *A Theoretical Calculation of the Quadrupole Moment of Several Simple Molecules*.
- GUYTON, PERCY L., B.S., Mississippi State College; M.B.A., Northwestern University.  
Dissertation: *The Government and Cotton to 1862*.
- HANCE, CHARLES ROBERT, B.S., University of Illinois.  
Dissertation: *Synthesis and Reactions of Certain Organo-silicon Compounds*.
- HARRIS, CARL VERNON, B.A., Wake Forest College; B.D., S.T.M., Yale University.  
Dissertation: *Origen of Alexandria's Interpretation of the Teacher's Function in the Early Christian Hierarchy and Community*.
- HARRIS, JAMES THURLOE, JR., B.S., The Citadel; A.M., Duke University.  
Dissertation: *A Study of the Association and Hydrogen Bonding of Some Organic Acids by Means of Infrared Absorption Measurements*.
- HEIMBERG, MURRAY, B.S., Cornell University; M. Food S., Cornell University.  
Dissertation: *Studies on the Metabolism of Methionine*.
- HONES, EDWARD WHEELER, B.S., A.M., Duke University.  
Dissertation: *A Sea-Level Study of the Nuclear Disintegrations Produced in Argon by Cosmic Radiation*.
- JACKSON, WINSTON JEROME, JR., B.S., Virginia Polytechnic Institute.  
Dissertation: *The Synthesis of Some Phenanthrene Compounds by the Cyclization of Aldehydes and Ketones*.
- JODREY, LOUISE HARRIET, B.S., M.Sc., Dalhousie University.  
Dissertation: *Studies on Shell Formation Using Radioactive Isotopes*.
- JOSEFIAK, EUGENE JOSEPH, B.A., M.A., University of Buffalo.  
Dissertation: *Studies in the Genus Phialophora Thaxter 1915*.
- KAO, KATHERINE CHUN CH'UN, A.B., A.M., Yenching University. Psychology.  
Dissertation: *A Psychological Study of Conscientious Objectors*.
- KAPOHAN, JACK ALBERT, B.S.S., College of the City of New York.  
Dissertation: *The Effects of Pain on Intellectual Efficiency and Level of Aspiration*.
- KING, DORIS ELIZABETH, A.B., Georgia State Woman's College; A.M., Duke University.  
Dissertation: *Hotels of the Old South: 1793-1860. A Study of the Origin and Development of the First-Class Hotels*.
- KINGSTON, MARION JOSEPHINE, A.B., Mount Holyoke College.  
Dissertation: *Claire Clairmont: A Biographical and Critical Study*.
- KYLE, JOSEPH BURCH, B.A., Linfield College; A.M., University of Oregon.  
Dissertation: *Spain and Its Colonies, 1814-1820*.
- LIND, EDWARD LOUIS, Sc.B., Brown University; A.M., Duke University.  
Dissertation: *A Study of the Sorption of Some Vapors by Organic Compounds*.
- MAN, EUGENE HERBERT, A.B., Oberlin College.  
Dissertation: *Acylation of aliphatic and aromatic compounds by means of acidic reagents*.
- MCDERMOTT, ROBERT EMMET, B.S., M.S., Iowa State College.  
Dissertation: *The Significance of Germination and the Survival of Seedlings in Early Phases of Lowland Succession*.
- MIOHAUX, WILLIAM WHITEHEAD, A.B., University of North Carolina.  
Dissertation: *Some Relationships Between Hunger and Word-Completion Responses in Normal and in Schizophrenic Subjects*.
- MUNSTER, RALF F. WILLIAM, A.B., A.M., Duke University.  
Dissertation: *The Development of Ethics in the Philosophy of Max Scheler. A Study in Personalistic Phenomenology*.
- OSTWALT, JAY HAROLD, A.B., Davidson College; A.M., Duke University.  
Dissertation: *Relationship of Certain Psychological Factors to Advanced Engineering Scholarship*.
- PANNILL, HARRY BURNELL, B.A., Randolph-Macon College; B.D., Duke University.  
Dissertation: *John Fiske: Cosmic Theist*.



- PORTER, HARDIN KIBBE, B.S., University of Texas; M.S., Georgia School of Technology.  
Dissertation: *Synthesis of Some Fungicidal Aromatic Compounds.*
- POTTER, RICHARD AUSTIN, B.S., Rollins College.  
Dissertation: *Near Ultraviolet Absorption Spectra of Some Rhodanine Derivatives.*
- SALES, REAMES HAWTHORNE, A.B., Hendrix College; B.D., Duke University.  
Dissertation: *The Separation of Christianity from Judaism.*
- SASTRI, MANTRALA L. N., B.Sc., M.Sc., Benares Hindu University.  
Dissertation: *Spectroscopic Studies of Some Substituted Benzenes in the Near Ultraviolet.*
- SEYLER, WILLIAM CHARLES, B.A., M.A., University of Pittsburgh.  
Dissertation: *The Rise and Decline of the Socialist Party in the United States.*
- SHARP, HENRY, JR., B.E., Vanderbilt University.  
Dissertation: *Strongly Homeomorphic Imbedding of  $F \sigma$ -Sets in a Subset of  $E_n$ .*
- STALZER, ROBERT FREDRICK, B.S., Kent State University; A.M., Duke University.  
Dissertation: *Equilibrium of Mixtures of Manganese Dioxide and Manganite with Solutions.*
- STEPHENSON, HAROLD PATTY, B.S. in M.E., A.M., Duke University.  
Dissertation: *Spectroscopic Studies of Certain Heterocyclic Compounds.*
- STRAIN, EDWARD RICHARD, JR., A.B., Butler University.  
Dissertation: *An Experimental Analysis of a Mechanism of Transfer Mediating a Gradient of Avoidance Under Non-Reinforcement Conditions.*
- THOMPSON, DONALD FREDERICK, B.S., M.S., Tufts College.  
Dissertation: *A Study of Methods of Synthesis and Equilibrium Factors in the Claisen Condensation.*
- VOGEL, RALPH ARNOLD, B.A., Wagner College; M.A., University of Buffalo.  
Dissertation: *Cultural and Immunologic Studies on the Parasitic Growth Phase of Coccidioides Immitis, the Etiologic Agent of Coccidioidomycosis.*
- WAGGONER, BROOKS MILTON, A.B., University of Arkansas; B.D., A.M., Duke University.  
Dissertation: *Studies in Hebrew Poetry with Special Reference to the Contributions of Robert Lowth.*
- WEBB, WARREN W., A.B., University of North Carolina.  
Dissertation: *Conceptual Ability of Schizophrenics as a Function of Threat of Failure.*
- WILLIAMS, JOEL QUITMAN, B.S., Centenary College; M.S., Georgia Institute of Technology.  
Dissertation: *Microwave Spectra and Molecular Structures of  $POF_3$ ,  $PSF_3$ ,  $POCl_3$  and  $PSCl_3$ .*
- ZAUDER, HOWARD L., A.B., M.Sc., University of Vermont.  
Dissertation: *The Role of the Adrenal Cortex in the Action and Fate of Several Analgesic Drugs.*

## ADVANCED DEGREES CONFERRED SEPTEMBER 1, 1951

## MASTER OF ARTS

- |                               |                           |
|-------------------------------|---------------------------|
| Altman, Jean                  | McCrary, Martha Penn      |
| Angle, Mary                   | Morris, William Clews     |
| Bailey, Jep Harmon            | Paden, Erma Elizabeth     |
| Bourdeau, Philippe F.         | Perry, Frances Hunter     |
| Chekenian, Iris               | Peterson, Margaret Ann    |
| Christopher, Benjamin Bellows | Pfeiffer, Mary Margaret   |
| Cooper, Mildred Jo            | Phillips, John Nova       |
| Davidson, Cornelia            | Pullig, Flora Margaret    |
| Donegan, Thomas Daniel        | Rylander, Gustave W., Jr. |
| Flood, David Wall             | Shear, William Merrill    |
| Glanan, Paul Thompson         | Sinclair, Peter Kirk      |
| Grimball, Berkeley            | Smith, Geneva Marie       |
| Hardison, David Caleb         | Stockdale, Harry Foster   |
| Hilgartner, Margaret Wehr     | Webb, Edwin Hull          |
| Krenkel, Edward George, Jr.   | Witt, Fountain Joel       |
| Lowenherz, Robert Jack        | Young, James Howard       |

## MASTER OF EDUCATION

- |                           |                            |
|---------------------------|----------------------------|
| Beasley, James Edwin      | McArthur, John Bernard     |
| Dula, Lucile Noell        | McMahon, Frances Elizabeth |
| Hazelwood, Dallas Earle   | Rowles, William John       |
| Huneycutt, Charles Jerome | Smith, Mary Brent          |
| Irwin, Evelyn Simpson     | Whisner, Eileen A.         |
| Kump, Rosann              | Williamson, Paul Wendell   |

**BULLETIN**  
**OF**  
**DUKE UNIVERSITY**



**Undergraduate Instruction**

(Trinity College, the Woman's College, and the  
College of Engineering)

ANNOUNCEMENTS FOR 1953-1954

# Annual Bulletins

For GENERAL BULLETIN of Duke University, apply to *The Secretary*, Duke University, Durham, N. C.

For BULLETIN OF UNDERGRADUATE INSTRUCTION, apply to *The Secretary*, Duke University, Durham, N. C.

For BULLETIN OF THE COLLEGE OF ENGINEERING, apply to *The Secretary*, Duke University, Durham, N. C.

For BULLETIN OF THE GRADUATE SCHOOL OF ARTS AND SCIENCES, apply to *The Dean of the Graduate School*, Duke University, Durham, N. C.

For BULLETIN OF THE SCHOOL OF FORESTRY, apply to *The Dean of the School of Forestry*, Duke University, Durham, N. C.

For BULLETIN OF THE SCHOOL OF LAW, apply to *The Dean of the School of Law*, Duke University, Durham, N. C.

For BULLETIN OF THE SCHOOL OF MEDICINE, apply to *The Dean of the School of Medicine*, Duke University, Durham, N. C.

For BULLETIN OF THE SCHOOL OF NURSING, apply to *The Dean of the School of Nursing*, Duke University, Durham, N. C.

For BULLETIN OF THE DIVINITY SCHOOL, apply to *The Dean of the Divinity School*, Duke University, Durham, N. C.

For BULLETIN OF THE SUMMER SESSION, apply to *The Director of the Summer Session*, Duke University, Durham, N. C.

Published by Duke University monthly except in July, August, September, and December. Entered as second-class matter March 25, 1929, at the Post Office of Durham, North Carolina, under the Act of August 24, 1912.

# DUKE UNIVERSITY

TRINITY COLLEGE

THE WOMAN'S COLLEGE

THE COLLEGE OF ENGINEERING



ANNOUNCEMENTS FOR 1953-54



GOthic TOWERS



BULLETIN  
OF  
DUKE UNIVERSITY



UNDERGRADUATE INSTRUCTION

TRINITY COLLEGE  
THE WOMAN'S COLLEGE  
THE COLLEGE OF ENGINEERING

1952-1953

ANNOUNCEMENTS FOR 1953-54

DURHAM, NORTH CAROLINA  
1953

"I request . . . that great care and discrimination be exercised in admitting as students only those whose previous record shows a character, determination, and application evincing a wholesome and real ambition for life."

—JAMES B. DUKE.

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# 1953

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# 1954

## JANUARY

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# Calendar of the Colleges

1953

- September 10. Thursday, 9:00 A.M. Dormitories open to freshmen.  
September 10. Thursday, 9:00 A.M. Dormitories open to transfer students entering Trinity College and the College of Engineering.  
September 10. Thursday, 7:30 P.M. Assembly for all entering freshmen; Freshman Orientation begins.  
September 10. Thursday, 7:30 P.M. Assembly for transfer students entering Trinity College and the College of Engineering.  
September 14. Monday. Registration and matriculation of former students of Trinity College and the College of Engineering, who have not pre-registered.  
September 15. Tuesday. Registration and matriculation of new students with advanced standing, Woman's College.  
September 16. Wednesday. Final registration of pre-registered students.  
September 17. Thursday. Instruction begins, fall semester.  
October 27. Tuesday. Junior Examination in English Usage.  
November 9. Monday. Last day for reporting mid-semester grades.  
November 26. Thursday. Thanksgiving Day: a holiday.  
December 11. Friday. Founders' Day.  
December 19. Saturday, 12:30 P.M. Christmas recess begins.

1954

- January 4. Monday, 8:00 A.M. Instruction is resumed.  
January 18. Monday. Mid-year examinations begin.  
January 29. Friday. Mid-year examinations end.  
January 30. Saturday. Registration and matriculation of new students.  
February 1. Monday. Last day for matriculation for the spring semester.  
February 2. Tuesday. Instruction begins, spring semester.  
March 17. Wednesday. Last day for reporting mid-semester grades.  
March 27. Saturday, 12:30 P.M. Spring recess begins.  
April 5. Monday, 8:00 A.M. Instruction is resumed.  
May 24. Monday. Final examinations begin.  
June 3. Thursday. Final examinations end.  
June 5. Saturday. Commencement begins.  
June 6. Sunday. Commencement sermon.  
June 7. Monday. Graduating exercises.



# The Undergraduate Colleges



DUKE UNIVERSITY is built about a group of colleges which have their roots deep in the past. It was founded more than one hundred years ago when a number of earnest citizens from Randolph and adjacent counties assembled in a log school house to organize an educational society. They wished to provide lasting support for the local academy founded a few months before by an energetic son of North Carolina, Brantley York.

Moved by "no small share of philanthropy and patriotism," these men set forth their belief "that ignorance and error are the bane not only of religious but also of civil society" and that they "rear up almost an impregnable wall between man and the happiness he so ardently pants after." On that basis they formally adopted a constitution for the Union Institute Society. Thus in February, 1839, the academy became Union Institute. Twelve years later the Institute was reorganized as Trinity College. In 1892 it was moved from the fields of Randolph County to the growing city of Durham. Thirty-two years later the College grew into Duke University. With increasing enrollment and the development of specialized needs the Woman's College was formed in 1925 and the College of Engineering in 1938.

From academy to university the basic principles have remained constant. The University motto, *Eruditio et Religio*, reflects a fundamental faith in the union of knowledge and religion, the advancement of learning, the defense of scholarship, the love of freedom and truth, a spirit of tolerance, and a rendering of the greatest service to the individual, the state, the nation, and the church. Through changing generations of students the objective has been to encourage each individual to achieve to the extent of his capacities an understanding and appreciation of the world in which he lives, his relationship to it, his opportunities, and his responsibilities.

Duke University is concerned with developing the whole man. In its classrooms, libraries, and laboratories it is concerned with his mental and moral development, in its gymnasiums and on its playing fields, with his physical growth, and in its Chapel and religious program, with his spiritual well being. Although it has always been closely associated with the Methodist Church, Duke welcomes students of all faiths and encourages them to develop their spiritual lives in accordance with the tenets of their own creeds. The need of training for specialized professions and employments is recognized, but such training is incidental to a larger purpose. Through the variety of the

subject matter, the insistence on a common core of fundamental courses, and an emphasis on a more intensive study of some selected subject, the colleges seek to give their students a knowledge and appreciation of the culture of the Western World and at the same time to provide a foundation for careers in business and the professions.

The three colleges exist as parts of a university community in which the student has full opportunity to take part. They have a unique role in this community as the centers of individual education for undergraduates, but as members of the University the colleges share in the extensive facilities of laboratory and field work, superior physical equipment, great libraries, and able faculties which only a major university can provide. They share the same campuses with the Graduate School of Arts and Sciences, the Law School, the Medical and Nursing Schools, the Divinity School, the School of Forestry, and the Duke Hospital. A wide range of activities, religious, intellectual, cultural, social, and athletic, are open to the entire University community. At the same time there are other activities and organizations designed specifically for members of each undergraduate college. The student may thus enjoy both the activities and atmosphere of a small college and the broader facilities and challenges provided by the existence of a university community.

Although the three colleges have separate identities, they are closely inter-related. Students of Trinity College and the College of Engineering live in the same dormitories, belong to the same fraternities, hold membership in the same student government association, attend classes in the same buildings. The College of Engineering provides for the specialized interests of its students by offering training in technical fields. At the same time it recognizes the importance of the study of the humanities because it realizes that the engineer has definite responsibilities as a citizen and that these responsibilities cannot be properly stressed in the purely technical curricula. Engineering students, therefore, participate in the academic and extra-curricula life of the liberal arts college as well as in the training and campus activities peculiar to their own college.

As a coordinate college within the University system the Woman's College shares the advantages of the wider community, and yet it offers to its students the special opportunities which belong to a separate woman's college. Women students receive training in leadership by administering their own organizations and by participating in community projects. At the same time they have the stimulus which comes from co-educational classes and from the experience of working with men of other colleges in campus activities.

Whether in the classroom or on the campus the emphasis is on the individual. To this end, classes are kept small in size and close

contact between professor and student is encouraged. Instructors, counsellors, advisers, and administrative officers are interested in the student as a person. In turn the student is expected to accept the responsibility of contributing to his own development, to his college, and to his university. The relationship of mutual service between the individual student and his college is designed to develop men of intelligence, virtue, and culture. From this relationship there has grown through a century and more a sense of achievement and high competence that enables Duke men and women to make their place in the world as effective citizens whatever their careers may be.

# Officers of the University for the Year 1952-53



## *The Corporation*

### THE EXECUTIVE COMMITTEE

The Executive Committee of the University consists of three members from the University Trustees, three from the Endowment Trustees, and the President of the University.

WILLIS SMITH, *Chairman*

GEORGE GARLAND ALLEN

NORMAN ATWATER COCKE

ARTHUR HOLLIS EDENS

AMOS RAGAN KEARNS

ALEXANDER H. SANDS, Jr.

BUNYAN SNIPES WOMBLE

CHRISTINE ALLEN KIMBALL, *Recording Secretary*

Raleigh, N. C.

New York, N. Y.

Charlotte, N. C.

Durham, N. C.

High Point, N. C.

New York, N. Y.

Winston-Salem, N. C.

Durham, N. C.

### THE UNIVERSITY TRUSTEES

WILLIS SMITH, *Chairman*

NORMAN ATWATER COCKE, *Vice-Chairman*

SIDNEY SHERRILL ALDERMAN

GEORGE GARLAND ALLEN

KENNETH McMANES BRIM

CHARLES ALBERT CANNON

ROBERT GREGG CHERRY

HENRY CLAY DOSS

NORMAN EDWARD EDGERTON

DONALD SILER ELIAS

BENJAMIN FERGUSON FEW

JESSE PAUL FRIZZELLE

\*THOMAS McMILLAN GRANT

PHILLIP FRANK HANES

PLEASANT HUBER HANES

JULIUS WELCH HARRISS

WILLIAM JULIUS HOBBS

JOSEPH LAWRENCE HORNE

CALVIN BRYAN HOUCK

WALKER PATTERSON INMAN

GEORGE MELVIN IVEY

EDWIN LEE JONES

BENJAMIN EVERETT JORDAN

AMOS RAGAN KEARNS

ROBERT ANDREW MAYER

EDGAR HARRISON NEASE

WILLIAM WALTER PEELE

HUBBARD BRAXTON PORTER

PAUL LINDSAY SAMPLE

ALEXANDER H. SANDS, Jr.

JAMES BUREN SIDBURY

Raleigh, N. C.

Charlotte, N. C.

Washington, D. C.

New York, N. Y.

Greensboro, N. C.

Concord, N. C.

Gastonia, N. C.

Detroit, Mich.

Raleigh, N. C.

Asheville, N. C.

New York, N. Y.

Snow Hill, N. C.

Rocky Mount, N. C.

Winston-Salem, N. C.

Winston-Salem, N. C.

High Point, N. C.

Atlanta, Ga.

Rocky Mount, N. C.

Roanoke, Va.

Georgetown, S. C.

Charlotte, N. C.

Charlotte, N. C.

Saxapahaw, N. C.

High Point, N. C.

Charlotte, N. C.

Atlanta, Ga.

Laurinburg, N. C.

Troy, N. C.

McKeesport, Pa.

New York, N. Y.

Wilmington, N. C.

\* Died, December 31, 1952.

JAMES RAYMOND SMITH  
 ESTELLE FLOWERS SPEARS  
 WALTER ALBERT STANBURY  
 EARLE WAYNE WEBB  
 BUNYAN SNIPES WOMBLE

Mount Airy, N. C.  
 Durham, N. C.  
 Asheboro, N. C.  
 New York, N. Y.  
 Winston-Salem, N. C.

*Trustee Emeritus*

JAMES ARDREY BELL

Charlotte, N. C.

*Officers Emeriti*

- |  |                                    |
|--|------------------------------------|
| ALICE MARY BALDWIN, Ph.D., LL.D.<br><i>Professor Emeritus of History</i>                             | 406 Swift Avenue                   |
| JOSEPH PENN BREEDLOVE, M.A.<br><i>Librarian Emeritus</i>   | 407 Watts Street                   |
| FREDERICK AUGUSTUS GRANT COWPER, Ph.D.<br><i>Professor Emeritus of Romance Languages</i>             | 1017 Dacian Avenue                 |
| CHARLES WILLIAM EDWARDS, A.M., M.S.<br><i>Professor Emeritus of Physics</i>                          | 406 Buchanan Boulevard             |
| WILLIAM STONE FITZGERALD, A.M.<br><i>Instructor Emeritus of English</i>                              | 603 Watts Street                   |
| MRS. LILLIAN B. GRIGGS, B.A. in L.S.<br><i>Librarian Emeritus</i>                                    | 915 Monmouth Avenue                |
| GEORGE T. HARGITT, Ph.D., Sc.D.<br><i>Professor Emeritus of Zoology</i>                              | 811 Watts Street                   |
| HUGO CLAUDE HORACK, LL.B., LL.D.<br><i>Professor Emeritus of Law</i>                                 | Arlington, Va.                     |
| CHARLES ALBERT KRUMMEL, Ph.D.<br><i>Professor Emeritus of German</i>                                 | 2118 Englewood Avenue              |
| JESSE MARVIN ORMOND, B.D., D.D.<br><i>Professor Emeritus of Practical Theology</i>                   | 110 Pinecrest Road                 |
| ARTHUR SPERRY PEARSE, Ph.D., LL.D.<br><i>Professor Emeritus of Zoology</i>                           | 803 Second Street                  |
| CHARLES WILLIAM PEPPLER, Ph.D.<br><i>Professor Emeritus of Greek</i>                                 | 406 Buchanan Boulevard             |
| ARTHUR MARCUS PROCTOR, Ph.D.<br><i>Professor Emeritus of Education</i>                               | 2106 Myrtle Drive                  |
| WILLIAM WALTER RANKIN, JR., M.A.<br><i>Professor Emeritus of Mathematics</i>                         | 1011 Gloria Avenue                 |
| GILBERT THEODORE ROWE, S.T.D., D.D., Litt.D.<br><i>Professor Emeritus of Christian Doctrine</i>      | 150 Pinecrest Road                 |
| MRS. BESSIE WHITTED SPENCE, A.M., B.D.<br><i>Assistant Professor Emeritus of Biblical Literature</i> | 3629 Hope Valley Road, Hope Valley |
| HERSEY EVERETT SPENCE, B.D., D.D., Litt.D.<br><i>Professor Emeritus of Religious Education</i>       | 3629 Hope Valley Road, Hope Valley |
| MRS. MARY HENDREN VANCE, A.M.<br><i>Assistant Professor Emeritus of English</i>                      | New Bern, N. C.                    |
| ALBERT MICAIAH WEBB, A.M.<br><i>Professor Emeritus of Romance Languages</i>                          | 1017 Trinity Avenue                |
| ALBAN GREGORY WIDGERY, M.A.<br><i>Professor Emeritus of Philosophy</i>                               | 152 Pinecrest Road                 |



ROBERT NORTH WILSON, M.S. <i>Professor Emeritus of Chemistry</i>	822 Third Street
EDWARD HUDSON YOUNG, A.M. <i>Assistant Professor Emeritus of Romance Languages</i>	107 Watts Street

## *Officers of Administration*

### GENERAL ADMINISTRATION

ARTHUR HOLLIS EDENS, Ph.D., LL.D. <i>President of the University</i>	2138 Myrtle Drive
WILLIAM HANE WANNAMAKER, A.M., Litt.D. <i>Vice-Chancellor of the University</i>	615 West Campus
PAUL MAGNUS GROSS, Ph.D. <i>Vice-President in the Division of Education</i>	3816 Dover Road, Hope Valley
CHARLES EDWARD JORDAN, A.B., LL.D. <i>Vice-President in the Division of Public Relations</i>	813 Vickers Avenue
HERBERT JAMES HERRING, M.A., LL.D. <i>Vice-President in the Division of Student Life</i>	2010 Myrtle Drive
ALFRED SMITH BROWER, A.B. <i>Business Manager and Comptroller</i>	614 West Campus
CHARLES BLACKWELL MARKHAM, A.M. <i>Treasurer of the University</i>	204 Dillard Street

### EDUCATIONAL ADMINISTRATION

PAUL MAGNUS GROSS, Ph.D. <i>Vice-President in the Division of Education, and Dean of the University</i>	3816 Dover Road, Hope Valley
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## The Colleges

ROBERTA FLORENCE BRINKLEY, Ph.D. <i>Dean of the Woman's College</i>	East Campus
WILLIAM HOLLAND HALL, A.M., M.S.C.E. <i>Dean of the College of Engineering</i>	922 Urban Avenue
HERBERT JAMES HERRING, M.A., LL.D. <i>Dean of Trinity College</i>	2010 Myrtle Drive
ALAN KREBS MANCHESTER, Ph.D. <i>Dean of Undergraduate Studies</i>	2016 Myrtle Drive
WILLIAM COUNCILL ARCHIE, Ph.D. <i>Associate Dean of Trinity College</i>	2310 Cranford Road
ROBERT B. COX, A.M. <i>Dean of Undergraduate Men</i>	1107 Ninth Street
ELLEN HARRIS HUCKABEE, A.M. <i>Dean of Undergraduate Instruction, Woman's College</i>	1507 W. Pettigrew Street
MARIANNA DUNCAN JENKINS, Ph.D. <i>Associate Dean of Undergraduate Instruction, Woman's College</i>	1026 Minerva Avenue
LEWIS J. McNURLEN, M.A. <i>Assistant Dean of Freshmen, Trinity College</i>	1818 Glendale Avenue
LANIER W. PRATT, M.A. <i>Assistant Dean of Trinity College in Charge of Freshmen</i>	2007 Ruffin Street

MARY GRACE WILSON, A.M. <i>Dean of Undergraduate Women</i>	Faculty Apartments
MRS. ELIZABETH ANDERSON PERSONS, A.M. <i>Director of Admissions, Woman's College</i>	612 Swift Avenue
EVERETT BROADUS WEATHERSPOON, A.B. <i>Director of Admissions, Trinity College and the College of Engineering</i>	125 Pinecrest Road
WILLIAM LAMBRETH BRINKLEY, JR., A.B. <i>Assistant Director of Admissions, Trinity College and the College of Engineering</i>	202 Faculty Apartments, East Campus
*ANN ANDERSON BRIDGERS, A.B. <i>Field Secretary, Undergraduate Admissions</i>	Poplar Apartments
JOHN C. DUNSON, A.B. <i>Field Secretary, Undergraduate Admissions</i>	Box 4261, Duke Station
†WILLIAM JACKSON GRIFFITH, A.B. <i>Field Secretary, Undergraduate Admissions</i>	Erwin Apartments
ELIZABETH LASSITER, A.B. <i>Field Secretary, Undergraduate Admissions</i>	506 Buchanan Boulevard
MARGARET L. COLEMAN, A.M. <i>Recorder, Trinity College and the College of Engineering</i>	918 Urban Avenue
ANNE INMAN, B.S. <i>Administrative Assistant, Graduate School</i>	1406 Duke University Road
HELEN MILDRED KENDALL, A.B. <i>Administrative Assistant and Secretary of the Faculty, Divinity School</i>	402 Buchanan Boulevard
LOUISE SEABOLT, A.M. <i>Recorder, Woman's College</i>	Faculty Apartments
HENRY WEITZ, Ed.D. <i>Director of the Bureau of Testing and Guidance</i>	517½ South Duke Street
EDWARD L. ADAMS, JR., Ph.D. <i>Senior Counselor, Bureau of Testing and Guidance</i>	Box 71B, Route 1, Old Chapel Hill Road
J. ALBERT SOUTHERN, A.B. <i>Psychometrist, Bureau of Testing and Guidance</i>	862 Louise Circle, Poplar Apartments

### Graduate and Professional Schools

CHARLES SACKETT SYDNOR, M.A. (Oxon.), Ph.D., Litt.D. <i>Dean of the Graduate School of Arts and Sciences</i>	116 Pinecrest Road
‡JOSEPH CLARKE ROBERT, Ph.D. <i>Associate Dean of the Graduate School of Arts and Sciences</i>	1102 B Street
CHARLES EUGENE WARD, Ph.D. <i>Director of Admissions, Graduate School of Arts and Sciences</i>	2429 Perkins Road
JAMES CANNON, A.M., Th.M., D.D. <i>Dean of the Divinity School</i>	2022 Myrtle Drive
CLARENCE FERDINAND KORSTIAN, Ph.D. <i>Dean of the School of Forestry</i>	4 Sylvan Road
JOSEPH A. MCCLAIN, JR., J.S.D., LL.D. <i>Dean of the School of Law</i>	2021 Myrtle Drive

\* Resigned, June 1, 1952.

† Resigned, August 15, 1952.

‡ Resigned, August 31, 1952.

WILBURT CORNELL DAVISON, D.Sc., M.D., LL.D. <i>Dean of the School of Medicine</i>	Hope Valley
FLORENCE K. WILSON, R.N., M.A. <i>Dean of the School of Nursing</i>	Faculty Apartments
PAUL HIBBERT CLYDE, Ph.D. <i>Director of the Summer Session</i>	Cole Mill Road
OLAN L. PETTY, Ph.D. <i>Assistant Director of the Summer Session</i>	115 Faculty Apartments
CAZLYN GREEN BOOKHOUT, Ph.D. <i>Director of the Duke Marine Laboratory</i>	1307 Alabama Avenue

## BUSINESS ADMINISTRATION

ALFRED SMITH BROWER, A.B. <i>Business Manager and Comptroller</i>	614 West Campus
CHARLES BLACKWELL MARKHAM, A.M. <i>Treasurer of the University</i>	204 Dillard Street
CHARLES EDWARD JORDAN, A.B., LL.D. <i>Secretary of the University</i>	813 Vickers Avenue
EDWIN CONSTANT BRYSON, LL.B. <i>University Attorney</i>	1023 Sycamore Street
GERHARD CHESTER HENRICKSEN, C.P.A. <i>Assistant Business Manager and Assistant Comptroller</i>	216 Forest Wood Drive
JOHN M. DOZIER, A.B. <i>Associate Secretary of the University</i>	2111 Ruffin Street
WILLIAM EDWARD WHITFORD, A.B. <i>Director of Operation and Maintenance</i>	146 Pinecrest Road
THEODORE WARREN MINAH, B.S. in H.M. <i>Director of Dining Hall Operations</i>	2117 Club Boulevard
MARY ROBINSON, B.A., B.S. <i>Manager, the Dining Halls, Woman's College</i>	921 Lambeth Circle
LAURA MARGUERITE DEYOE, B.S. <i>Manager, the Dining Halls, Men's Graduate Center</i>	2722 Brown Avenue
JOHN ELLWOOD DOXEY, A.M. <i>Purchasing Agent</i>	1004 Broad Street
JESSE DAVID WELLONS, JR. <i>Manager of Stores Operations</i>	2703 Augusta Drive
WALTER GLEN COOPER, B.A. <i>Personnel Director</i>	1008 North Gregson Street
WILLIAM KENNETH HOWARD, B.S. <i>Maintenance Engineer</i>	106 Pinecrest Road
HENRY FRANKLIN BOWERS, A.B. <i>Manager of Operations</i>	2505 Perkins Road
ERNEST LEE HAYWOOD, A.B. <i>Chief Accountant</i>	104 Hilton Avenue
*JAMES FRANKLIN COUSINS, C.P.A. <i>Auditor</i>	615 Swift Avenue
HARRY L. KELLER, C.P.A. <i>Supervisor, Budgets and Reports</i>	1 Carolee Apartments

\* Resigned, January 1, 1953.

HENRY SPECK MORGAN, A.B. <i>Chief Clerk, Treasurer's Office</i>	409 Francis Street
ROBERT BEVERIDGE FEARING <i>Adviser, Student Activities</i>	1803 Forest Road
CARL A. BOY <i>Superintendent of Utilities</i>	2214 Erwin Road
JOHN C. GIFT <i>Superintendent of Building Maintenance</i>	811 Fifth Street

## PUBLIC RELATIONS

CHARLES EDWARD JORDAN, A.B., LL.D. <i>Vice-President in the Division of Public Relations</i>	813 Vickers Avenue
JOHN M. DOZIER, A.B. <i>Assistant to the Vice-President in the Division of Public Relations; Executive Secretary, University Scholarship Committee</i>	2111 Ruffin Street
*EDWARD L. FIKE, A.B. <i>Director, Bureau of Public Information</i>	801 Third Street
EARL W. PORTER, A.B., B.J. <i>Director, Bureau of Public Information</i>	Randolph Road
GLENN EDWARD MANN, A.B. <i>Director, Office of Athletic Information</i>	Cole Mill Road
FANNIE YARBROUGH MITCHELL <i>Director, Appointments Office</i>	16 Alastair Court

## ALUMNI AFFAIRS

CHARLES AUBREY DUKES, A.B. <i>Director</i>	1309 Oakland Avenue
ANNE GARRARD, A.M. <i>Assistant Director</i>	1411 North Duke Street
WILLIAM ALLEN TYREE, A.B. <i>Field Secretary, Duke University Loyalty Fund</i>	610 Buchanan Boulevard
CHARLOTTE CORBIN, A.B. <i>Assistant to the Director</i>	403 W. Chapel Hill Street
ROGER L. MARSHALL, A.B. <i>Editor, Alumni Register, and Assistant to the Director</i>	1829 Forest Road
FRED W. WHITENER, A.B. <i>Secretary of Local Associations</i>	Cornwallis Road
PATSY G. MCKAY, A.B. <i>Recorder</i>	Route 2, Roxboro Road
JAMES J. WHITLEY, JR. <i>University Photographer</i>	2509 Banner Street

*Officers of Instruction*

## INSTRUCTIONAL STAFF

*All members of the several faculties of the University are included. The date denotes the first year of service.*

PAUL MCB. ABERNETHY (1952), M.D. <i>Instructor in Ophthalmology</i>	Burlington, N. C.
ARTHUR F. ABT (1952), M.D. <i>Professor of Pediatrics; Director of Radioisotope Unit, Veterans Hospital</i>	Duke Hospital
* Resigned, May 12, 1952.	

- \*FRANCES DOROTHY ACOMB (1945), Ph.D.  
*Assistant Professor of History* 216 Faculty Apartments
- DONALD KEITH ADAMS (1931), Ph.D.  
*Professor of Psychology* 2508 Cornwallis Road
- EDWARD L. ADAMS, JR. (1951), Ph.D.  
*Instructor in Education* Box 71B, Route 1, Old Chapel Hill Road
- JOHN PLETCH ADAMS (1952), M.D.  
*Instructor in Orthopaedic Surgery* 1824 Forest Road
- TROGLER F. ADKINS (1938), M.D.  
*Instructor in Obstetrics and Gynecology* 2108 Sprunt Street
- JOHN W. ALLGOOD (1951), M.D.  
*Instructor in Medicine* Greensboro, N. C.
- ROBERT L. ALTER (1951), M.D.  
*Assistant Professor of Obstetrics and Gynecology* 2027 Woodward Street
- EDWIN PASCAL ALYEA (1930), M.D.  
*Professor of Urology* 3102 Devon Road, Hope Valley
- †LEWIS EDWARD ANDERSON (1936), Ph.D.  
*Associate Professor of Botany* 2020 Sunset Avenue
- ROGER FABIAN ANDERSON (1950), Ph.D.  
*Associate Professor of Forest Entomology* 2528 Perkins Road
- WILLIAM BANKS ANDERSON (1930), M.D.  
*Professor of Ophthalmology* 502 East Forest Hills Boulevard
- WILLIAM G. ANLYAN (1951), M.D.  
*Associate in Surgery* 2519 Pickett Road
- WILLIAM COUNCILL ARCHIE (1946), Ph.D.  
*Associate Professor of Romance Languages* 2310 Cranford Road
- JAY MORRIS ARENA (1933), M.D.  
*Associate Professor of Pediatrics* 2032 Club Boulevard
- RALPH ARANOVITZ ARNOLD (1946), M.D.  
*Associate Professor of Otolaryngology and Ophthalmology* 415 Carolina Circle
- TANASH H. ATOYNATAN (1952), P.C.N., M.D.  
*Instructor in Psychiatry* 2016 James Street
- THEODORE WINSLOW ATWOOD (1934), D.M.D.  
*Associate in Dentistry* 9 Carolee Apartments  
 2200 Elder Street
- THOMAS MALCOLM AYCOCK (1937), M.A.  
*Professor of Physical Education* DIC University Apartments
- JOSEPH RANDLE BAILEY (1946), Ph.D.  
*Assistant Professor of Zoology* 10 Duke University Apartments
- †HORACE MITCHELL BAKER, JR. (1948), M.D.  
*Instructor in Surgery* 2315 Wilson Street
- LENOX DIAL BAKER (1937), M.D.  
*Professor of Orthopaedic Surgery* 3106 Cornwall Road, Hope Valley
- ROGER D. BAKER (1930-1942; 1952), M.D.  
*Professor of Pathology* 303 Swift Avenue
- MARIE BALDWIN (1949), M.D.  
*Instructor in Psychiatry* Duke Hospital
- KATHARINE MAY BANHAM (1946), Ph.D.  
*Associate Professor of Psychology* 115 North Dillard Street

\* Absent on sabbatical leave, fall semester, 1952-53.

† Absent on sabbatical leave, spring semester, 1952-53.

‡ Resigned, August 31, 1952.



- SHERWOOD W. BAREFOOT (1946), M.D. 363 North Elm Street, Greensboro, N. C.  
*Instructor in Dermatology and Syphilology*
- JAMES FOSTER BARNES (1929), A.M. 2401 Cranford Road  
*Lecturer in Church Music*
- ROBERT D. BARNES (1952), B.S. University Apartments  
*Instructor in Zoology*
- \*BETTY GREEN BASON (1949), R.N., B.S. 2100 Erwin Road  
*Instructor in Medical Nursing*
- WOODROW BATTEN (1951), M.D. 332 South Third Street, Smithfield, N. C.  
*Instructor in Medicine*
- PAUL FRANKLIN BAUM (1922), Ph.D. 112 Pinecrest Road  
*Professor of English*
- GEORGE JAY BAYLIN (1939), M.D. 2260 Cranford Road  
*Professor of Radiology and Associate in Anatomy*
- CHARLES A. BAYLIS (1952), Ph.D. 2802 Erwin Road  
*Professor of Philosophy*
- †WILLIAM WALDO BEACH (1946), Ph.D. 100 Vineyard Street  
*Professor of Christian Ethics*
- MRS. DOROTHY WATERS BEARD (1938), R.N. Route 3, Hillsboro, N. C.  
*Research Associate in Surgery*
- JOSEPH WILLIS BEARD (1937), M.D. Route 3, Hillsboro, N. C.  
*Professor of Surgery in Charge of Experimental Surgery; Associate Professor of Virology*
- R. FREDERICK BECKER (1951), Ph.D. 1010 Monmouth Avenue  
*Associate Professor of Anatomy*
- \*ROBERT L. BENNETT (1946), M.D. Duke Hospital  
*Lecturer in Physical Medicine*
- WALTER R. BENSON (1952), M.D. 947 Lambeth Circle, Poplar Apartments  
*Instructor in Pathology*
- ‡KLAUS WILLIAM BERBLINGER (1950), M.D. 2318 Huron Circle  
*Associate in Psychiatry*
- FREDERICK BERNHEIM (1930), Ph.D. Woodridge Drive  
*Professor of Pharmacology*
- MRS. MARY LILIAS CHRISTIAN BERNHEIM (1930), Ph.D. Woodridge Drive  
*Associate Professor of Biochemistry*
- \*\*EDWARD WILLARD BERRY (1936), Ph.D. 1003 North Gregson Street  
*Professor of Geology*
- WILLIAM M. BERTON (1952), M.D. 887 Louise Circle, Poplar Apartments  
*Associate in Pathology*
- MRS. HELEN SMITH BEVINGTON (1943), M.A. Box 94, Route 2, Guess Road  
*Assistant Professor of English*
- MERLE MOWERAY BEVINGTON (1942), Ph.D. Box 94, Route 2, Guess Road  
*Associate Professor of English*
- LUCIUS AURELIUS BIGELOW (1929), Ph.D. 131 Pinecrest Road  
*Professor of Chemistry*
- ROBERT R. BIGELOW (1952) Duke Hospital  
*Visiting Lecturer in Surgery*

\* Resigned, August 31, 1952.

† Absent on sabbatical leave, spring semester, 1952-53.

‡ Resigned, April 1, 1952.

\*\* Absent on sabbatical leave, fall semester, 1952-53.

- \*DWIGHT BILLINGS (1952), Ph.D.  
*Associate Professor of Botany* Department of Botany
- HAROLD CRUSIUS BIRD (1926), Ph.B., C.E.  
*Professor of Civil Engineering* 1209 Virginia Avenue
- MARTIN L. BLACK, JR. (1930), M.B.A., C.P.A.  
*Professor of Accounting* 135 Pinecrest Road
- WILLIAM MAXWELL BLACKBURN (1926), Ph.D.  
*Professor of English* 2101 Ward Street
- †BERNARD BLACK-SCHAEFFER (1945), M.D.  
*Associate Professor of Pathology* Piedmont Apartments
- EMIL BLAIR (1952), M.D.  
*Instructor in Medicine* Elder Street
- ROBERT LINCOLN BLAKE (1949)  
*Instructor in Medical Art and Illustration* 609 Ruby Street
- MARTIN M. BLOCK (1952), Ph.D. 927 Lambeth Circle, Poplar Apartments  
*Assistant Professor of Physics and Research Associate*
- HUGO LEANDER BLOMQUIST (1920), Ph.D.  
*Professor of Botany* 922 Demerius Street
- BYRON M. BLOOR (1952), M.D.  
*Instructor in Neurosurgery* 2302 Erwin Road
- †EDNA MAY BLUMENTHAL (1950), B.S.  
*Lecturer in Physical Therapy* 1507 West Pettigrew Street
- JAMES ROBERT BLY (1949), M.S.  
*Assistant Professor of Physical Education* University Apartments
- WILLIAM BRYAN BOLICH (1927), M.A., B.C.L.  
*Professor of Law* 3724 Hope Valley Road, Hope Valley
- EDWARD CLAUDE BOLMEIER (1948), Ph.D.  
*Professor of Education* Faculty Apartments
- †GEORGE F. BOND (1949), M.D.  
*Instructor in General Practice of Medicine* Duke Hospital
- ALLAN HADLEY BONE (1944), M.M.  
*Associate Professor of Music* 2314 West Club Boulevard
- CAZLYN GREEN BOOKHOUT (1935), Ph.D.  
*Associate Professor of Zoology* 1307 Alabama Avenue
- MRS. ELIZABETH CIRCLE BOOKHOUT (1932-43; 1945), M.S.  
*Associate Professor of Physical Education* 1307 Alabama Avenue
- ALEXANDER W. BOONE (1952), M.D.  
*Associate in Urology* 1106 Buchanan Boulevard
- JOHN CHESLEY BOVIL (1952), M.D.  
*Instructor in Surgery* 919 Broad Street
- JEAN D. BOWEN (1952), Ph.D.  
*Instructor in Romance Languages* 1009 West Trinity Avenue
- W. EDGAR BOWERS, JR. (1952), M.A.  
*Instructor in English* 1011 Lamond Avenue
- †FRANCIS EZRA BOWMAN (1945), Ph.D.  
*Associate Professor of English* 1503 Alabama Avenue

\* Absent on leave, 1952-53.

† Resigned, August 31, 1952.

‡ Absent on sabbatical leave, fall semester, 1952-53.

- BENJAMIN BOYCE (1950) , Ph.D.  
*Professor of English* 1200 Dwire Place
- JOSEPH ALSTON BOYD, JR. (1952) , M.D. 867 Louise Circle, Poplar Apartments  
*Assistant Professor of Radiology and Radiologist*
- DAVID GILBERT BRADLEY (1949) , Ph.D.  
*Assistant Professor of Undergraduate Religion* 405 Carver Street
- HAROLD L. BRADLEY (1950) , B.S.  
*Instructor in Physical Education* 1903 Washington Street
- CHARLES KILGO BRADSHAW (1939) , Ph.D.  
*Associate Professor of Chemistry* 2318 Englewood Avenue
- JOHN SAEGER BRADWAY (1931) , A.M., LL.B.  
*Professor of Law, and Director of the Legal Aid Clinic* 2621 Stuart Drive
- \*ROYALL BRANDIS (1949) , M.A.  
*Instructor in Economics* 2720 Brown Avenue
- \*J. STREET BREWER (1949) , M.D.  
*Instructor in General Practice of Medicine* Roseboro, N. C.
- \*JOHN P. BRIGGS (1950) , M.D.  
*Instructor in Psychiatry* 2413 University Drive
- ROBERTA FLORENCE BRINKLEY (1947) , Ph.D.  
*Professor of English* East Campus
- \*THOMAS RAY BROADBENT (1950) , M.D.  
*Instructor in Surgery* 1408 Duke University Road
- MRS. HELEN EELS BROCK (1952) , B.E., R.N., B.S.  
*Instructor in Nursing Arts* D3C University Apartments
- ROBERT MAURICE BRODERSON (1952) , M.F.A.  
*Instructor in Art Education and Studio, and  
Instructor in Department of Education* 4 Duke University Apartments  
Fifth and Markham Avenue
- CHANDLER WILCOX BROWN (1947) , B.S. in C.E.  
*Instructor in Civil Engineering* Box 4, Route 1, Cornwallis Road
- FRANCES CAMPBELL BROWN (1931) , Ph.D.  
*Associate Professor of Chemistry* 1205 Dwire Place
- IVAN WILLARD BROWN, JR. (1940-42; 1945) , M.D.  
*Assistant Professor of Surgery* 2314 Woodrow Street
- WADE G. BROWN (1947) , A.B.  
*Instructor in Preventive Medicine and Public Health* Duke Hospital
- WILLIAM HUGH BROWNLEE (1948) , Ph.D.  
*Assistant Professor of Old Testament* 1014 Edith Street
- MARSHALL N. BRUCER (1950) , M.D.  
*Lecturer in Physiology* Duke Hospital
- PAUL ROBEY BRYAN (1951) , M.M.  
*Assistant Professor of Music* Duke University Apartments
- †JEANETTE ELIZABETH BRYANT (1949) , R.N., B.S.  
*Instructor in Surgical Nursing* 2020 James Street
- EDWIN CONSTANT BRYSON (1931) , LL.B.  
*Associate Professor of Law, and Instructor in Hospital Administration* 1023 Sycamore Street
- LOUIS J. BUDD (1952) , Ph.D.  
*Assistant Professor of English* 2224 Elba Street
- MRS. JESSE HARNED BUFKIN (1949) , R.N., R.R.L.  
*Assistant Professor of Medical Record Science* 2425 Perkins Road

\* Resigned, August 31, 1952.

† Resigned, June 30, 1952.

- \*EVERETT I. BUGG, JR. (1946), M.D.  
*Instructor in Orthopaedics* 1544 Hermitage Court
- RODERICK MARK BUIE, JR. (1951), M.D.  
*Instructor in Medicine* 3405 Madison Avenue, Greensboro, N. C.
- †THOMAS WADE BURNS (1950), M.D.  
*Instructor in Medicine* 2302 Cranford Road
- JASPER LAMAR CALLAWAY (1937), M.D.  
*Professor of Dermatology and Syphilology* 828 Anderson Street
- EDMUND McCULLOUGH CAMERON (1926), A.B.  
*Director of Physical Education and Athletics,  
and Assistant Coach of Football* 2818 Chelsea Circle, Hope Valley
- FRANK H. CAMPBELL (1952), M.D.  
*Instructor in Medicine* Duke Hospital
- MARY B. CAMPBELL (1952), R.N., B.S., M.A.A.N.A.  
*Instructor in Operating Room Technique* Hanes House
- PAUL C. CAMPBELL, JR. (1951), M.D.  
*Instructor in Dermatology and Syphilology* 327 Ray Avenue, Fayetteville, N. C.
- JAMES CANNON (1919), A.M., Th.M., D.D.  
*Ivey Professor of the History of Religion and Missions* 2022 Myrtle Drive
- LEONARD CARLITZ (1932), Ph.D.  
*Professor of Mathematics* 2303 Cranford Road
- DAVID WILLIAMS CARPENTER (1929), Ph.D.  
*Professor of Physics* 137 Pincrest Road
- ‡JOHN WINDER CARR, JR. (1926), Ph.D.  
*Professor of Education* 926 Monmouth Avenue
- EBER MALCOLM CARROLL (1923), Ph.D.  
*Professor of History* K1C University Apartments
- R. CHARMAN CARROLL (1944), R.N., A.B., M.D.  
*Assistant Professor of Psychiatry* Duke Hospital
- \*\*KYLE CARSON (1949), R.N., A.B.  
*Instructor in Medical Nursing* Leesville Road
- BAYARD CARTER (1931), M.D.  
*Professor of Obstetrics and Gynecology* 2111 Myrtle Drive
- DONALD D. CARTER (1952), M.D.  
*Instructor in Medicine* 875 Louise Circle, Poplar Apartments
- ††NAOMI RUTH CARTER (1949), R.N., B.E.  
*Instructor in Surgical Nursing* 2102 Erwin Road
- ALLAN M. CARTTER (1952), Ph.D.  
*Assistant Professor of Economics and Research Associate* 7 Sylvan Road
- WILLIAM H. CARTWRIGHT (1951), Ph.D.  
*Professor of Education* 942 Lambeth Circle, Poplar Apartments
- MRS. HELEN KENNARD CASTELLANO (1947), M.A.  
*Instructor in Romance Languages* 2511 Perkins Road
- JUAN RODRÍGUEZ CASTELLANO (1947), Doctor en Filosofía y Letras  
*Associate Professor of Romance Languages* 2511 Perkins Road
- LEON EDWARD CHAIKEN (1952), B.S., M.F.  
*Associate Professor of Forest Management and  
Assistant Director of the Forest* 1211 Ruffin Street

\* Resigned, August 31, 1952.

† Resigned, December 18, 1951.

‡ Absent on sabbatical leave, 1952-53.

\*\* Resigned, June 30, 1952.

†† Resigned, April 14, 1952.

- MRS. ROMA SAWYER CHEEK (1947), Ph.D.  
*Assistant Professor of Political Science* 1014 Gloria Avenue
- BENJAMIN GUY CHILDS (1924), M.A.  
*Professor of Education* 1019 West Markham Avenue
- MARGARET CHURCH (1946), Ph.D.  
*Instructor in English* Route 2, Cole Mill Road
- ELON HENRY CLARK (1934)  
*Professor of Medical Art and Illustration* 1300 Oakland Avenue
- KENNETH WILLIS CLARK (1931), Ph.D.  
*Professor of New Testament Language and Literature* 1308 West Markham Avenue
- LELIA R. CLARK (1949), R.N., M.A.  
*Assistant Professor of Nursing Education* Hanes House
- ROBERT W. CLARK (1950), A.B., Captain, U. S. Air Force  
*Assistant Professor of Air Science* 1109 North Gregson Street
- JAMES T. CLELAND (1945), M.A., S.T.M., D.D.  
*Professor of Homiletics, and Preacher to the University* 2117 Myrtle Drive
- PAUL HIBBERT CLYDE (1937), Ph.D.  
*Professor of History* Box 256, Route 2, Cole Mill Road
- CLARENCE H. COBB (1934), Ph.G.  
*Instructor in Hospital Administration* 402 Morehead Avenue
- LOUIS DAVID COHEN (1946), Ph.D.  
*Assistant Professor of Psychology, and Assistant Professor of Clinical Psychology* 913 Monmouth Avenue
- THEODORE STANLEY COLE (1935), Ph.D.  
*Professor of Forset Soils* Box 301, Route 1, Hillsboro Road
- \*ROBERT TAYLOR COLE (1935), Ph.D.  
*Professor of Political Science* 7 Sylvan Road
- GEORGE H. COLLIER (1951), Ph.D.  
*Assistant Professor of Psychology* 510 East Club Boulevard
- JOHN P. COLLINS (1948), M.D.  
*Assistant Professor of Surgery* 15 Alastair Apartments
- JOEL G. COLTON (1947), Ph.D.  
*Assistant Professor of History* CIC University Apartments
- NORMAN FRANCIS CONANT (1935), Ph.D.  
*Professor of Mycology, and Associate Professor of Bacteriology* Route 1, Old Cornwallis Road
- RICHARD GRIGSBY CONNAR (1950), M.D.  
*Instructor in Surgery* Alastair Apartments
- ROBERT HOWE CONNERY (1949), Ph.D.  
*Professor of Political Science* 906 Buchanan Boulevard
- †DANIEL COOK (1950), M.A.  
*Instructor in English* 15 Hawthorne Drive
- EVELYN VAIL COONRAD (1952), M.D.  
*Instructor in Medicine* 11D Westover Park Apartments
- RAPHAEL W. COONRAD (1952), M.D.  
*Instructor in Orthopaedic Surgery* 11D Westover Park Apartments
- ALBERT DERWIN COOPER (1934), M.D.  
*Instructor in Medicine* 1006 Dacian Avenue
- THOMAS HOWARD CORDLE (1950), Ph.D.  
*Instructor in Romance Languages* 2420 Perkins Road

\* Absent on sabbatical leave, 1952-53.

† Resigned, August 31, 1952.



- ALFRED NIXON COSTNER (1950), M.D.  
*Associate in Ophthalmology* K3A University Apartments
- ROBERT CALVIN COX (1942), M.A.  
*Instructor in Physical Education* 1826 Guess Road
- ROBERT LAWRENCE CRAIG (1938), M.D.  
*Associate in Psychiatry* Duke Hospital
- \*HATTIE MILDRED CRAWLEY (1946), R.N., B.S., B.S.N.Ed.  
*Instructor in Nursing Arts* Statesville, N. C.
- ROBERT NOWELL CREADICK (1946), M.D.  
*Associate Professor of Obstetrics and Gynecology* 2226 Elba Street
- MASON CRUM (1930), Ph.D., Litt.D.  
*Professor of Biblical Literature* 912 Anderson Street
- JOHN SHELTON CURTISS (1945), Ph.D.  
*Professor of History* Route 2, Box 95
- ROBERT EARL CUSHMAN (1945), Ph.D.  
*Professor of Systematic Theology* 130 Pinecrest Road
- W. KENNETH CUYLER (1938), Ph.D.  
*Research Instructor in Obstetrics* Box 19, Route 1, Durham, N. C.
- BINGHAM DAI (1943), Ph.D.  
*Professor of Psychology, and Professor of Medical Psychology* 2404 Perkins Road
- WILLIAM DAVID DAVIES (1950), B.D., D.D.  
*Professor of Biblical Theology* 13 Duke University Apartments
- CLARENCE D. DAVIS (1950), M.D.  
*Assistant Professor of Obstetrics and Gynecology* 2301 West Club Boulevard
- COURTLAND HARWELL DAVIS, JR. (1950), M.D.  
*Instructor in Neurology* 1803 Hillcrest Drive
- GIFFORD DAVIS (1930), Ph.D.  
*Associate Professor of Romance Languages* 2248 Cranford Road
- JAY DAVIS (1952), B.S., M.A.  
*Instructor in Physical Education* 213 Faculty Apartments
- MRS. ATALA THAYER SCUDDER DAVISON (1942), M.D.  
*Associate in Pediatrics* Fairways, Hope Valley
- WILBURT CORNELL DAVISON (1927), M.D., D.Sc., LL.D.  
*Professor of Pediatrics* Fairways, Hope Valley
- ALEXANDER DECONDE (1952), Ph.D.  
*Research Associate in History* 2513 Pickett Road
- JOHN ESSARY DEES (1939), M.D.  
*Associate Professor of Urology* 413 Carolina Circle
- MRS. SUSAN COONS DEES (1939), M.D.  
*Associate Professor of Pediatrics and Allergy* 413 Carolina Circle
- DAVID C. DELLINGER (1951), B.S.M.E., Captain, U. S. Air Force  
*Instructor in Air Science* L3C University Apartments
- WILLIAM J. A. DEMARIA (1951), M.D.  
*Associate in Pediatrics* 2721 Brown Avenue, Poplar Apartments
- JEAN-JACQUES DEMOREST (1948), Ph.D.  
*Assistant Professor of Romance Languages* 1013 Broad Street
- WILLIAM ERNEST DETURK (1949), M.D., Ph.D.  
*Assistant Professor of Pharmacology* 1212 Ruffin Street

\* Resigned, October 13, 1952.

- FRANK TRAVER DE VYVER (1935), Ph.D.  
*Professor of Economics* 8 Sylvan Road
- DONALD J. DEWEY (1950), M.A.  
*Assistant Professor of Economics* 611 Watts Street
- MACDONALD DICK (1932), M.D.  
*Assistant Professor of Physiology and Pharmacology, and Associate in Medicine* Hope Valley
- ROBERT L. DICKENS (1949), M.S., C.P.A.  
*Assistant Professor of Accounting* 877 Louise Circle, Poplar Apartments
- RUSSELL LESLIE DICKS (1949), B.D., D.D., D.Litt.  
*Associate Professor of Pastoral Care and Chaplain to Duke Hospital* 2308 Prince Street
- \*HUGH DORTCH, JR. (1951), M.D.  
*Associate in Pathology* 2108 Cole Road
- MRS. MARIE-THERESE LINIERE DOW (1934), L. ès L., M.A.  
*Instructor in Romance Languages* 2252 Cranford Road
- NEAL DOW (1934), Ph.D.  
*Assistant Professor of Romance Languages* 2252 Cranford Road
- †JOSEPH THEOBALD DOYLE (1952), M.D.  
*Associate in Medicine* Duke Hospital
- FRANCIS GEORGE DRESSSEL (1929), Ph.D.  
*Professor of Mathematics* 309 Francis Street
- KENNETH LINDSAY DUKE (1940), Ph.D.  
*Associate Professor of Anatomy* 701 West Club Boulevard
- BRADFORD DUNHAM (1950), Ph.D.  
*Instructor in Philosophy* 603 Watts Street
- OSCAR DUQUE (1951), M.D.  
*Associate in Pathology* 826 Louise Circle, Poplar Apartments
- ROBERT F. DURDEN (1952), Ph.D.  
*Instructor in History* 216 Faculty Apartments
- GEORGE SHARP EADIE (1930), Ph.D.  
*Professor of Physiology and Pharmacology* 3433 Dover Road, Hope Valley
- WATT WEEMS EAGLE (1930), Ph.D.  
*Professor of Otolaryngology* 804 Anderson Street
- MRS. ELEANOR BEAMER EASLEY (1934), M.D.  
*Associate in Obstetrics and Gynecology* Guess Road
- HOWARD EASLEY (1930), Ph.D.  
*Associate Professor of Education* Guess Road
- †HARRY CLAUDE MACCOLL EASTMAN (1949), M.A.  
*Instructor in Economics* Alastair Apartments
- FREDERICK THOMAS EASTWOOD (1951), M.D.  
*Instructor in Pediatrics* 1839 West Smallwood Drive, Raleigh, N. C.
- RUTH BUCHANAN EDDY (1952), M.S.  
*Assistant Professor of Physical Education* 1507 West Pettigrew Street
- JOSHUA L. EDWARDS (1951), M.D.  
*Associate in Pathology* 802 Louise Circle, Poplar Apartments
- FRANK NICHOLAS EGERTON (1945), A.M., E.E.  
*Assistant Professor of Electrical Engineering* 411 North Gregson Street

\* Resigned, August 31, 1952.

† Resigned, November 1, 1952.

- SAMUEL L. ELFMON (1949), M.D.  
*Instructor in Medicine* 225 Green Street, Fayetteville, N. C.
- WILLIAM WHITFIELD ELLIOTT (1925), Ph.D.  
*Professor of Mathematics* Box 4721, Duke Station
- LEON HUBBARD ELLIS (1947), Ph.D.  
*Lecturer in Political Science* 2428 Perkins Road
- ERNEST ELSEVIER (1950), M.S. in M.E.  
*Assistant Professor of Mechanical Engineering* Route 1, Hillsboro, N. C.
- \* SARAH WATSON EMERY (1951), Ph.D.  
*Visiting Lecturer in Philosophy* Chapel Hill, N. C.
- JOHN RICHARD EMLET (1952), M.D.  
*Instructor in Surgery* 2521 Pickett Road
- FRANK LIBMAN ENGEL (1947), M.D.  
*Associate Professor of Medicine and Associate in Physiology* 1302 Oakland Avenue
- JESSE HARRISON EPPERSON (1930), B.S.  
*Instructor in Preventive Medicine and Public Health* 1601 Hermitage Court
- DAVID V. ERDMAN (1952), Ph.D.  
*Visiting Professor of English* 2215 Cranford Road
- MARY ELLEN ESTILL (1949), Ph.D.  
*Instructor in Mathematics* J3A University Apartments
- JOHN WENDELL EVERETT (1932), Ph.D.  
*Professor of Anatomy* 2605 University Drive
- WILLIAM MARTIN FAIRBANK (1952), Ph.D.  
*Associate Professor of Physics* 2016 Pershing Street
- CARMEN M. FALCONE (1946), M.A.  
*Assistant Professor of Physical Education* University Apartments
- WILLIAM WINFREE FARLEY (1951), M.D.  
*Instructor in Pediatrics* 817 Hillsboro Street, Raleigh, N. C.
- BLAKE FAWCETT (1952), M.D.  
*Instructor in Surgery* 324 Monmouth Avenue
- JOHN MORTON FEIN (1950), Ph.D.  
*Assistant Professor of Romance Languages* 854 Louise Circle, Poplar Apartments
- JAMES RONE FELTS, JR. (1949)  
*Instructor in Hospital Administration* 700 Clement Avenue, Charlotte, N. C.
- ARTHUR BOWLES FERGUSON (1939), Ph.D.  
*Associate Professor of History* 209 Woodridge Drive
- GEORGE BURTON FERGUSON (1937), M.D.  
*Associate in Bronchoscopy* 3938 Dover Road, Hope Valley
- BERNARD F. FETTER (1951), M.D.  
*Instructor in Pathology* 803 Demerius Street
- ROBERT JAMES FILER (1951), Ph.D.  
*Assistant Professor of Psychology* 915 Lambeth Circle, Poplar Apartments
- † MARSHALL L. FISHER (1949), M.D.  
*Associate in Psychiatry* Roanoke, Va.
- WALTER CLEVELAND FITZGERALD (1951), M.D.  
*Instructor in Dermatology and Syphilology* 2 Chambers Street, Danville, Va.
- MRS. JULIA FLEMING (1949), R.N., B.S.  
*Instructor in Psychiatric Nursing* Hanes House

\* Fall and spring semesters, 1951-52.

† Resigned, August 31, 1952.

- \*WILLIAM JOHNSON FLEMING (1949), M.D.  
*Instructor in Medicine* Randolph Road
- WILEY DAVIS FORBUS (1930), M.D.  
*Professor of Pathology* 3309 Devon Road, Hope Valley
- RUSSELL A. FRASER (1952), Ph.D.  
*Instructor in English* 908 Shepherd Street
- CHARLES DARBY FULTON, JR. (1950), Sc.D.  
*Assistant Professor of Mechanical Engineering* 1614 University Drive
- †OLIVE VALERIA GALLOWAY (1950), B.S., B.S.N.Ed.  
*Clinical Instructor in Medical Nursing* 205 Cornwallis Road
- CLARENCE ELLSWORTH GARDNER, JR. (1930), M.D., D.Sc.  
*Professor of Surgery* 3106 Devon Road, Hope Valley
- ELIZABETH GARMAN (1952), R.N., B.S.  
*Instructor in Surgical Nursing* Hanes House
- NORMAN GARMEZY (1950), Ph.D.  
*Assistant Professor of Psychology* 3423 Hope Valley Road, Hope Valley
- NICHOLAS G. GEORGAIDE (1951), D.D.S., M.D.  
*Associate in Oral Surgery* 2417 Bruton Road
- JOHN GAY GERGEN (1936), Ph.D.  
*Professor of Mathematics* 2803 Nation Avenue
- ALLAN H. GILBERT (1920), Ph.D.  
*Professor of English* 503 Compton Place
- ‡MRS. KATHARINE EVERETT GILBERT (1930), Ph.D., Litt.D.  
*Professor of Philosophy* 503 Compton Place
- STEPHEN ARNOLD GINN (1950), M.D.  
*Associate in Psychiatry* 2517 Glendale Avenue
- RENÉ GIRARD (1952), Ph.D.  
*Instructor in Romance Languages* 1004 Carolina Avenue
- JOHN GLASSON (1952), M.D.  
*Instructor in Orthopaedics* 1817 Hillcrest Drive
- \*\*GEORGE G. GLOCKLER (1952), Ph.D.  
*Visiting Lecturer in Chemistry* 3309 Avon Road, Hope Valley
- CLARENCE GOHDES (1930), Ph.D.  
*Professor of English* 2614 Stuart Drive
- JOSEPH LEONARD GOLDNER (1950), M.D.  
*Assistant Professor of Orthopaedics* 906 Demerius Street
- JEWETT GOLDSMITH (1949), M.D.  
*Associate in Psychiatry* 918 Monmouth Avenue
- WILLIAM LEWIS GORDON (1952), Ph.D.  
*Instructor in Mathematics* 802 Green Street
- WALTER GORDY (1946), Ph.D.  
*Professor of Physics* 2521 Perkins Road
- WILLIAM ALEXANDER GRAHAM (1938), M.D.  
*Instructor in Obstetrics and Gynecology* 2247 Cranford Road
- RICHARD BABSON GRANT (1952), Ph.D.  
*Instructor in Romance Languages* Apartment 4, 904 Second Street
- LAWRENCE EUGENE GRAVES (1952), M.A.  
*Instructor in English* 2206 Pike Street

\* Resigned, August 31, 1952.

† Resigned, June 7, 1951.

‡ Died, April 28, 1952.

\*\* Fall semester, 1952-53.

- CYRUS L. GRAY (1952), M.D.  
*Instructor in Radiology* 219 Boulevard Street, High Point, N. C.
- IRVING E. GRAY (1930), Ph.D.  
*Professor of Zoology* 124 Pinecrest Road
- \*MAURICE H. GREENHILL (1940), M.D.  
*Associate Professor of Psychiatry* Hope Valley
- EUGENE GREULING (1948), Ph.D.  
*Associate Professor of Physics* 2414 Perkins Road
- KEITH SANFORD GRIMSON (1930-42; 1945), M.D.  
*Professor of Surgery* 3313 Devon Road, Hope Valley
- PAUL MAGNUS GROSS (1919), Ph.D.  
*William Howell Pegram Professor of Chemistry* 3816 Dover Road, Hope Valley
- JULIA REBECCA GROUT (1924), M.S.  
*Professor of Physical Education* 804 Fourth Street
- †JOHN C. GUILDS (1948), M.A.  
*Instructor in English* 1005 Vickers Avenue
- NORMAN GUTTMAN (1951), Ph.D.  
*Assistant Professor of Psychology* 913 Lambeth Circle, Poplar Apartments
- ROSE HAHOLA (1952)  
*Instructor in Pediatric Nursing* Hanes House
- HOWARD N. HAINES (1943), B.S.  
*Instructor in Engineering* 2307 Club Boulevard
- MURRAY HALFOND (1952), Ph.D.  
*Associate in Medical Speech Pathology* 924 Lambeth Circle, Poplar Apartments
- FRANK GREGORY HALL (1926-42; 1945), Ph.D.  
*Professor of Physiology and Pharmacology* 122 Pinecrest Road
- LOUISE HALL (1931), B.A., S.B. in Architecture, Brevet d'Art  
*Associate Professor of Architecture* Box 6636, College Station
- WILLIAM HOLLAND HALL (1915), A.M., M.S.C.E.  
*Professor of Engineering* 922 Urban Avenue
- JOHN HAMILTON HALLOWELL (1942), Ph.D.  
*Professor of Political Science* 2709 Augusta Drive
- EDWIN CROWELL HAMBLIN (1931), M.D.  
*Associate Professor of Obstetrics and Gynecology, and*  
*Professor of Endocrinology* 810 Forest Hills Boulevard
- GEORGE WALTER HAMBRICK, JR. (1952), M.D.  
*Associate in Dermatology and Syphilology* 8 Glenn Apartments
- WILLIAM BASKERVILLE HAMILTON (1936), Ph.D.  
*Professor of History* 2256 Cranford Road
- PHILIP HANDLER (1939), Ph.D.  
*Professor of Biochemistry and Nutrition* 2529 Perkins Road
- FRANK ALLAN HANNA (1948), Ph.D.  
*Professor of Economics* 2239 Cranford Road
- OSCAR CARL EDVARD HANSEN-PRÜSS (1930), M.D.  
*Professor of Medicine in Charge of Clinical Microscopy* 3303 Surrey Road, Hope Valley
- EARL THOMAS HANSON (1946), Ph.D.  
*Assistant Professor of Political Science* 613 Swift Avenue
- ELLWOOD SCOTT HARRAR (1936), Ph.D.  
*Professor of Wood Technology* 2228 Cranford Road

\* Resigned, March 1, 1952.

† Resigned, August 31, 1952.



- ROBERT BRENT HARRELL (1950), A.B., Commander, U. S. Navy  
*Associate Professor of Naval Science* 1405 North Duke Street
- GEORGE PARKER HARRIS (1932), A.B.  
*Instructor in Hospital Administration* 2156 Colony Road, Charlotte, N. C.
- JEROME SYLVAN HARRIS (1936), M.D.  
*Professor of Pediatrics, and Associate Professor of Biochemistry* 1007 Rosehill Avenue
- FRANCIS PARKS HARRISON (1947), M.A.  
*Assistant Professor of Physical Education* 2511 Pickett Road
- HORNELL NORRIS HART (1938), Ph.D.  
*Professor of Sociology* 2535 Perkins Road
- JULIAN DERYL HART (1930), M.D.  
*Professor of Surgery* Route 1, Duke University Road
- GEORGE CORBIN HARWELL (1935), Ph.D.  
*Assistant Professor of English* 2115 Wilson Street
- CHARLES CLEVELAND HATLEY (1917), Ph.D.  
*Professor of Physics* 708 Buchanan Boulevard
- CHARLES ROY HAUSER (1929), Ph.D.  
*Professor of Chemistry* 1020 Rosehill Avenue
- CAROLINE ELIZABETH HELMICK (1949), M.D.  
*Associate in Preventive Medicine and Public Health,  
and Director of Student Health, Woman's College* East Campus
- JAMES PAISLEY HENDRIX (1938), M.D.  
*Associate Professor of Medicine and Therapeutics* 144 Pinecrest Road
- JOHN WILLIAM HENDRIX (1947), M.S.  
*Instructor in Physical Education* 1019 Oakland Avenue
- STEPHEN DUNCAN HERON, JR. (1950), M.S.  
*Instructor in Geology* Apartment 12, Duke University Apartments
- DUNCAN CHARTERIS HETHERINGTON (1930), Ph.D., M.D.  
*Professor of Anatomy* K3B University Apartments
- \*JOSEPH S. HIATT, JR. (1949), M.D.  
*Instructor in Medicine* McCain, N. C.
- JOHN BAMBER HICKAM (1947), M.D.  
*Associate Professor of Medicine* N2B, University Apartments
- †FRANKLIN SIMPSON HICKMAN (1927), Ph.D., D.D.  
*Professor of the Psychology of Religion* 921 West Markham Avenue
- ARTHUR OWEN HICKSON (1929), Ph.D.  
*Assistant Professor of Mathematics* 2712 Legion Avenue
- DOUGLAS GREENWOOD HILL (1931), Ph.D.  
*Professor of Chemistry* Box 275, Route 2, St. Mary's Road
- ‡EDGAR LAFAYETTE HILLMAN (1951), B.D., D.D.  
*Visiting Lecturer in Practical Theology* 1002 Knox Street
- \*JOSEPH MARTIN HITCH (1946), M.D.  
*Associate in Dermatology and Syphilology* Raleigh, N. C.
- MARCUS EDWIN HOBBS (1935), Ph.D.  
*Professor of Chemistry* 115 Pinecrest Road
- LESLIE BENJAMIN HOHMAN (1946), M.D.  
*Professor of Psychiatry* 616 Ruby Street

\* Resigned, August 31, 1952.

† Absent on sabbatical leave, fall semester, 1952-53.

‡ Spring semester, 1952-53.

BERNARD CLEVELAND HOLLAND (1948), M.D. <i>Associate in Medicine</i>	705 Louise Circle, Poplar Apartments
RAY WALTER HOLLAND (1947), B.S. in M.E. <i>Assitant Professor of Mechanical Engineering</i>	2528 Glendale Avenue
IRVING BRINTON HOLLEY, JR. (1947), Ph.D. <i>Assistant Professor of History</i>	6 Duke University Apartments
FRANCES VIRGINIA LEE HOLTON (1947), M.A. <i>Assistant Professor of Physical Education</i>	407 Erwin Apartments
THOMAS RUFFIN HOOD (1952), M.D. <i>Instructor in Medicine</i>	Duke Hospital
CALVIN BRYCE HOOVER (1925), Ph.D., Litt.D. <i>Professor of Economics</i>	1702 Duke University Road
EDWARD CHARLES HORN (1946), Ph.D. <i>Assistant Professor of Zoology</i>	2509 Cascadilla Street
STEPHEN FRANCIS HORNE (1950), M.D. <i>Instructor in Dermatology and Syphilology</i>	380 South Main Street, Rocky Mount, N. C.
*JAY BROADUS HUBBELL (1927), Ph.D., Litt.D. <i>Professor of English</i>	121 Pinecrest Road
DON DOUGAN HUMPHREY (1945), Ph.D. <i>Professor of Economics</i>	2802 Legion Avenue
MRS. WANDA SANBORN HUNTER (1947), Ph.D. <i>Associate Professor of Zoology</i>	880 Louise Circle, Poplar Apartments
†ROBERT STILWELL HUNTING (1949), Ph.D. <i>Instructor in English</i>	St. Mary's Road
THELMA INGLES (1949), R.N., M.A. <i>Assistant Professor of Nursing Education; Director, Division of Nursing Education</i>	854 Louise Circle, Poplar Apartments
WILLIAM HENRY IRVING (1936), Ph.D. <i>Professor of English</i>	2707 Legion Avenue
CHARLES EDWIN IRWIN (1946), M.D. <i>Lecturer in Orthopaedic Surgery</i>	Duke Hospital
‡JAMES O. JACKSON (1950), M.D. <i>Instructor in Psychiatry</i>	419 Hilton Avenue
JULIAN E. JACOBS (1936-38; 1947), M.D. <i>Lecturer in Orthopaedics</i>	Duke Hospital
†FRANCES CAROLINE JEFFERS (1947), A.M. <i>Assistant Professor of Nursing Education</i>	Baker House
MARIANNA DUNCAN JENKINS (1948), Ph.D. <i>Associate Professor of Art</i>	1026 Minerva Avenue
**HOWARD EIKENBERRY JENSEN (1931), Ph.D. <i>Professor of Sociology</i>	143 Pinecrest Road
FREDERICK CHARLES JOERG (1947), M.B.A. <i>Associate Professor of Economics</i>	1400 Oakland Avenue
†AMOS N. JOHNSON (1949), M.D. <i>Instructor in General Practice of Medicine</i>	Garland, N. C.
CHARLES E. JOHNSON (1952), M.A. <i>Instructor in English</i>	1400 Duke University Road
DOROTHY JOHNSTON (1952), R.N., B.S., C.P.H.N. <i>Assistant Professor of Nursing Education</i>	107 Hanes House

\* Absent on leave, spring semester, 1953.

† Resigned, August 31, 1952.

‡ Resigned, December 31, 1951.

\*\* Absent on sabbatical leave, spring semester, 1952-53.

- \*CARL CANDLER JONES, JR. (1950), M.D.  
*Instructor in Medicine* 2623 Lawndale Avenue
- ARCHIBALD CURRIE JORDAN (1925), M.A.  
*Assistant Professor of English* 147 Pinecrest Road
- †BRADY RIMBEY JORDAN (1927), Ph.D.  
*Professor of Romance Languages* 117 Pinecrest Road
- HELEN LOUISE KAISER (1943), R.P.T.T.  
*Assistant Professor of Physical Rehabilitation* 804 Fourth Street
- W. ARTHUR KALE (1952), B.D., D.D.  
*Professor of Practical Theology* 1011 Dacian Avenue
- HENRY KAMIN (1948), Ph.D.  
*Instructor in Biochemistry* J3C University Apartments
- ‡SEYMOUR ROBERT KAPLAN (1950), M.D.  
*Associate in Psychiatry* 1106 Alabama Avenue
- WALTER KEMPNER (1934), M.D.  
*Professor of Medicine* 1505 Virginia Avenue
- HAYWARD KENISTON (1952), Ph.D.  
*Visiting Lecturer in Romance Languages* 214 Faculty Apartments
- JAMES STEWART KENNEDY (1951), B.S., Lieutenant, U. S. Navy  
*Assistant Professor of Naval Science* 1613 Dexter Street
- VAN LESLIE KENYON, JR. (1945), M.M.E.  
*Assistant Professor of Mechanical Engineering* Route 2, Hillsboro, N. C.
- GRACE PARDRIDGE KERBY (1947), M.D.  
*Associate in Medicine* 28 H Poplar Apartments
- DWIGHT TALMADGE KERNODLE (1952), M.D.  
*Instructor in Medicine* Route 1, Elon College, N. C.
- GEORGE WALLACE KERNODLE (1949), M.D.  
*Instructor in Pediatrics* 305 West Front Street, Burlington, N. C.
- EILEEN DOROTHY KIERNAN (1952), R.N., B.S. in N.Ed.  
*Instructor in Nursing of Prematures* 854 Louise Circle, Poplar Apartments
- GREGORY A. KIMBLE (1952), Ph.D.  
*Associate Professor of Psychology* 1808 Hillcrest Drive
- JOHN TALBERT KING (1951), M.D.  
*Instructor in Pediatrics* 306 West Davis Street, Burlington, N. C.
- EDWARD P. KINGSBURY (1952), M.D.  
*Instructor in Pediatrics* 403 Jackson Street
- VERNON KINROSS-WRIGHT (1949), B.M. (Oxon.), D.P.M.  
*Associate in Psychiatry; Director of Durham Child Guidance Clinic* Box 79, Route 3, Durham, N. C.
- WILLIAM KLENZ (1947), M.A.  
*Assistant Professor of Music* 26 Alastair Court
- \*WALTER KLOPPER (1950), Ph.D.  
*Assistant Professor of Psychiatry, and Psychologist in the Department of Psychiatry* 2617 Acadia Street
- ROBERT J. KNIGHT, JR. (1952), B.S., Colonel, U. S. Air Force  
*Professor of Air Science and Tactics* 2107 Wilson Street
- \*\*SIGMUND KOCH (1942-47; 1948), Ph.D.  
*Associate Professor of Psychology* 2921 Horton Road
- \* Resigned, June 30, 1952.  
† Absent on sabbatical leave, spring semester, 1952-53.  
‡ Resigned, August 31, 1952.  
\*\* Absent on leave, 1952-53.

- CLARENCE FERDINAND KORSTIAN (1930), Ph.D.  
*Professor of Silviculture* 4 Sylvan Road
- \*GEORGE ELI KOURY (1951), M.D.  
*Visiting Instructor in Medicine* Burlington, N. C.
- PAUL JACKSON KRAMER (1931), Ph.D.  
*Professor of Botany* 2251 Cranford Road
- ROBERT KRAMER (1947), LL.B.  
*Professor of Law* 108 Pinecrest Road
- EDWARD K. KRAYBILL (1939), M.S.E.  
*Assistant Professor of Electrical Engineering* 900 Dacian Avenue
- ROBERT JOSEPH KUBISZEWSKI (1952), B.N.S., Lieutenant, U. S. Navy  
*Assistant Professor of Naval Science* 814 Green Street
- GEORGE FREDERICK KUDER (1948), Ph.D.  
*Professor of Psychology* 2516 Perkins Road
- EDWARD CHARLES KUNKLE (1948), M.D.  
*Associate Professor of Medicine in Charge of Neurology* 2525 Perkins Road
- WESTON LABARRE (1946), Ph.D.  
*Associate Professor of Anthropology* 1311 Alabama Avenue
- CHARLES EARL LANDON (1926), Ph.D.  
*Associate Professor of Economics* 1514 Edgevale Road
- WILLIAM GUERRANT LANE (1952), A.M.  
*Instructor in English* 120 West Seeman Street
- JOHN TATE LANNING (1927), Ph.D.  
*Professor of History* 3007 Surrey Road, Hope Valley
- WILLIAM THOMAS LAPRADE (1909), Ph.D.  
*Professor of History* 1108 Monmouth Avenue
- JOHN E. LARSH, JR. (1943), Sc.D.  
*Associate in Parasitology* Duke Hospital
- ELVIN REMUS LATTY (1937), J.D., J.Sc.D.  
*Professor of Law* 3620 Hathaway Road, Hope Valley
- CLARENCE WILLIAM LEGERTON, JR. (1951), M.D.  
*Instructor in Medicine* 713 Anderson Street
- \*EDGAR H. LEHRMAN (1951), M.A.  
*Instructor in Russian Language and Literature* 818 Third Street
- BENJAMIN FRANKLIN LEMERT (1930), Ph.D.  
*Associate Professor of Economics* 123 Pinecrest Road
- HAROLD WALTER LEWIS (1949), Ph.D.  
*Assistant Professor of Physics* 2307 Sprunt Street
- MARTHA MODENA LEWIS (1933), M.A.  
*Associate Professor of Physical Education* 407 Erwin Apartments
- RALPH ELTON LEWIS (1941), M.S. in M.E.  
*Assistant Professor of General Engineering* 1401 Alabama Avenue
- \*ROBERT GUILFORD LEWIS (1949), Ph.D.  
*Instructor in Romance Languages* Alastair Apartments
- †JOSEPH H. LITTLE (1951), M.A.  
*Instructor in Education* 821 Demerius Street
- CHARLES HARRIS LIVENGOD, JR. (1946), LL.B.  
*Professor of Law* 2804 Chelsea Circle, Hope Valley

\* Resigned, August 31, 1952.

† Resigned, June 30, 1952.

- \*MARIO LLERENA (1948), Doctor en Filosofía y Letras  
*Instructor in Romance Languages* Duke University Apartments
- ARTHUR HILL LONDON, JR. (1932), M.D.  
*Associate in Pediatrics* 306 South Gregson Street
- FREDERICK LONDON (1938), Ph.D., D. ès Sc.  
*Professor of Chemical Physics* 1508 Oakland Avenue
- \*WILLIAM F. LOVELL (1950), M.D.  
*Instructor in Medicine* 103 Club Boulevard
- HANS LÖWENBACH (1940), M.D.  
*Associate Professor of Psychiatry and Physiology* Box 79, Route 3, Durham, N. C.
- †CHARLES LUCIEN BAKER LOWNDES (1934), S.J.D.  
*Professor of Law* 2016 Club Boulevard
- AMANDA LUEDECKE (1952), R.N., B.S. in N.Ed.  
*Instructor in Psychiatric Nursing* Duke Hospital
- OSKAR HELGE LUNDHOLM (1930), Ph.D.  
*Professor of Psychology* 803 Second Street
- EMMETT S. LUPTON (1952), M.D.  
*Instructor in Dermatology and Syphilology* 102 Taisley, Greensboro, N. C.
- ANGUS M. MCBRYDE (1931), M.D.  
*Associate Professor of Pediatrics* 410 East Forest Hills Boulevard
- JOHN P. MCBRYDE (1950), M.A., Lt. Colonel, U. S. Air Force  
*Associate Professor of Air Science* 2524 State Street
- JOSEPH ADOLPHUS MCCLAIN, JR. (1950), J.S.D., LL.D.  
*Professor of Law* 2021 Myrtle Drive
- JOSEPH P. MCCracken (1946), M.D.  
*Instructor in Medicine* 126 Pincrest Road
- FORREST DRAPER MCCREA (1930), Ph.D.  
*Associate Professor of Physiology and Pharmacology* 1023 Demerius Street
- MALCOM McDERMOTT (1930), LL.B.  
*Professor of Law* Route 2, Linden Road
- GELOLO McHUGH (1946), Ph.D.  
*Assistant Professor of Psychology* 1413 Watts Street
- LIONEL WILFRED MCKENZIE, JR. (1948), M.A.  
*Assistant Professor of Economics* 18 Alastair Court, 300 Swift Avenue
- JONATHAN COLLINS McLENDON (1952), Ph.D.  
*Assistant Professor of Education* 937 Lambeth Circle, Poplar Apartments
- ‡CLARENCE McCAIN McMURRAY (1950), M.D.  
*Instructor in Medicine* 821 Demerius Street
- LEWIS J. McNURLEN (1952), M.A.  
*Instructor in Sociology* 1818 Glendale Avenue
- SAMUEL D. McPHERSON, JR. (1949), M.D.  
*Instructor in Ophthalmology* 1520 Hermitage Court
- DOUGLAS BLOUNT MACGS (1930), J.D., S.J.D.  
*Professor of Law* 3940 Dover Road, Hope Valley
- \*\*WILLIAM WAILES MAGRUDER (1946), M.D.  
*Instructor in Psychiatry* Duke Hospital

\* Resigned, August 31, 1952.

† Absent on sabbatical leave, spring semester, 1952-53.

‡ Resigned, December 18, 1951.

\*\* Resigned, June 30, 1952.



- ALAN KREBS MANCHESTER (1929), Ph.D.  
*Professor of History* 2016 Myrtle Drive
- PAUL FRANKLIN MANESS (1949), M.D.  
*Instructor in Pediatrics* 305 North Front Street, Burlington, N. C.
- JETHRO OATES MANLY (1952), B.S.  
*Instructor in Botany* 907 Lambeth Circle, Poplar Apartments
- EVERETT JAMES MANN (1950), M.B.A., C.P.A.  
*Associate Professor of Accounting* 1712 Roxboro Road
- JAMES C. MANRY (1952), Ph.D.  
*Visiting Professor of the History of Religion and Missions* 215 Faculty Apartments
- GEORGE MARGOLIS (1947), M.D.  
*Associate Professor of Pathology* 2417 Perkins Road
- JOSEPH ELDRIDGE MARKEE (1943), Ph.D.  
*Professor of Anatomy* 1015 Demerius Street
- SIDNEY DAVID MARKMAN (1947), Ph.D.  
*Associate Professor of Art History and Archaeology* 10 Duke University Apartments
- MRS. ELSIE W. MARTIN (1930), M.S.  
*Professor of Dietetics* 206 Faculty Apartments
- MRS. RUTH CAMPBELL MARTIN (1944), M.D.  
*Assistant Professor of Anesthesiology  
and Assistant Anesthetist* 113 Pinecrest Road
- SAMUEL PRESTON MARTIN (1949), M.D.  
*Assistant Professor of Medicine and Bacteriology* 113 Pinecrest Road
- LUCY ETHELYN MASSEY (1949), R.N., M.A.  
*Assistant Professor of Public Health Nursing* Chapel Hill, N. C.
- FRANCIS WYNNE MASTERS (1952), M.D.  
*Instructor in Plastic Surgery* 2305 Elder Street
- \*MRS. ANNE POWELL MATTHIAS (1950), M.S.  
*Instructor in Physical Education* Chapel Hill, N. C.
- WILLIAM CARY MAXWELL (1930), Ph.D.  
*Associate Professor of German* 142 Pinecrest Road
- †THEODORE H. MEES (1951), M.D.  
*Instructor in Medicine* 1824 Forest Road
- OTTO MEIER, JR. (1934), M.S., E.E.  
*Associate Professor of Electrical Engineering* 916 Monmouth Avenue
- ELIJAH EUGENE MENESEE, JR. (1940), M.D.  
*Associate Professor of Medicine* 2205 Cranford Road
- MRS. ANN REID MERZBACHER (1952), A.B.  
*Instructor in Mathematics* 306 Church Street, Chapel Hill, N. C.
- JAMES T. METZGER (1952), M.D.  
*Associate in Plastic and Oral Surgery* 814 Watts Street
- ‡M. VICTOR MICHALAK (1950), A.M.  
*Instructor in Speech* 2722 Brown Avenue
- OSCAR LEE MILLER (1946), M.D.  
*Lecturer in Orthopaedic Surgery* Charlotte, N. C.
- FRANK KIRBY MITCHELL (1926), A.M.  
*Associate Professor of English* 619 Swift Avenue
- IRVING WARD MOHR (1952), D.D.S.  
*Instructor in Oral Surgery* Duke Hospital

\* Resigned, August 31, 1952.

† Resigned, June 30, 1952.

‡ Absent on leave, 1952-53.

- WILFRIED F. H. M. MOMMAERTS (1948), Ph.D.  
*Lecturer in Biochemistry* 854 Louise Circle, Poplar Apartments
- ROBERT JOHN MONTFORT (1940), B.A.  
*Associate Professor of Physical Education* 3300 Cole Mill Road
- \*JAMES DONALDSON MOODY (1948), M.D.  
*Associate in Surgery* 2708 Legion Avenue
- †LOUISE G. MOSER (1949), R.N., M.N.  
*Assistant Professor of Nursing Education and Director,  
 Program in Advanced Psychiatric Nursing* 1004 Markham Avenue
- EARL GEORGE MUELLER (1945), B.M., M.A., M.F.A.  
*Assistant Professor of Art* 1212 Virginia Avenue
- MRS. JULIA WILKINSON MUELLER (1939-41; 1946), M.A.  
*Assistant Professor of Music* 1212 Virginia Avenue
- \*RICHARD J. F. MURPHY (1948), M.D., C.M.  
*Instructor in Medicine* 1203 Ruffin Street
- ROBERT J. MURPHY, JR. (1950), M.D.  
*Associate in Pediatrics* Chapel Hill, N. C.
- HIRAM EARL MYERS (1926), S.T.M., D.D.  
*Professor of Biblical Literature* 141 Pinecrest Road
- JACK DUANE MYERS (1947), M.D.  
*Associate Professor of Medicine* 713 Anderson Street
- JAMES B. MYERS (1952), A.B., Major, U. S. Air Force  
*Instructor in Air Science* McArthur Apartments No. 2, Butner Street
- MRS. JESSICA H. LEWIS MYERS (1950), M.D.  
*Associate in Medicine* 713 Anderson Street
- †GEORGE W. NACE (1951), Ph.D.  
*Assistant Professor of Zoology* Department of Zoology
- †HELEN NAHM (1946), R.N., M.S., Ph.D.  
*Professor of Nursing Education, and Director  
 Division Nursing Education* Faculty Apartments
- AUBREY WILLARD NAYLOR (1952), Ph.D.  
*Associate Professor of Botany* 881 Louise Circle, Poplar Apartments
- GLENN ROBERT NEGLEY (1946), Ph.D.  
*Professor of Philosophy* 1700 Shawnee Street
- ERNEST WILLIAM NELSON (1926), Ph.D.  
*Associate Professor of History* 939 Lambeth Circle, Poplar Apartments
- BARBARA CAROL NEWBORG (1952), M.D.  
*Instructor in Medicine* Box 3519, Duke Hospital
- \*MRS. DOROTHY FRANCE NEWCOMER (1949), M.S.  
*Instructor in Physical Education* 816 Buchanan Boulevard
- HENRY WINSTON NEWSON (1948), Ph.D.  
*Professor of Physics* 1111 North Gregson Street
- WILLIAM MCNEAL NICHOLSON (1935), M.D.  
*Professor of Medicine in Charge of Postgraduate Education,  
 and Diseases of Metabolism* 824 Anderson Street
- WALTER MCKINLEY NIELSEN (1925), Ph.D.  
*Professor of Physics* 139 Pinecrest Road
- LOTHAR WOLFGANG NORDHEIM (1937), Ph.D.  
*Professor of Physics* 2255 Cranford Road

\* Resigned, August 31, 1952.

† Absent on leave, 1952-53.

- WILLIAM K. NOWILL (1951), M.D.  
*Assistant Professor of Anesthesiology* 2604 Glendale Avenue
- JOHN M. OCKER (1951), B.S., Captain, U. S. Navy  
*Professor of Naval Science* 2101 Myrtle Drive
- GUY LEARY ODOM (1943), M.D.  
*Professor of Neurosurgery* 2812 Chelsea Circle, Hope Valley
- HENRY JOHN OOSTING (1932), Ph.D.  
*Professor of Botany* 2642 University Drive
- EDWARD STEWART ORGAIN (1934), M.D.  
*Professor of Medicine* 3321 Devon Road, Hope Valley
- \*EFFIE MARIE OSTERMAN (1950), R.N., M.A.  
*Assistant Professor of Nursing Education* 1102 Monmouth Avenue
- DEWEY A. OSTROM (1951), B.A., Lieutenant Commander, U. S. Navy  
*Assistant Professor of Naval Science and Tactics* 2507 Shenandoah Avenue
- HARRY ASHTON OWEN (1951), B.S. in E.E., M.S.E.  
*Assistant Professor of Electrical Engineering* Hillandale Road
- AUBREY EDWIN PALMER (1944), B.S. in Engr., C.E.  
*Assistant Professor of Civil Engineering* 2519 State Street
- LEONARD PALUMBO (1950), M.D.  
*Associate in Obstetrics and Gynecology* 1116 Ninth Street
- HAROLD TALBOT PARKER (1939), Ph.D.  
*Associate Professor of History* 12 Glenn Apartments, Dacian Avenue
- WILLIAM THOMAS PARROTT, JR. (1951), M.D.  
*Instructor in Medicine* 109 East Gordon Street, Kinston, N. C.
- FRANCIS PASCHAL (1952), LL.B., Ph.D.  
*Visiting Lecturer in Law* Raleigh, N. C.
- KARL BACHMAN PATTERSON (1920), A.M.  
*Assistant Professor of Mathematics* 1024 Monmouth Avenue
- ROBERT LEET PATTERSON (1945), Ph.D.  
*Professor of Philosophy* Washington Duke Hotel
- LEWIS PATTON (1926), Ph.D.  
*Associate Professor of English* 614 Swift Avenue
- WILLIAM BERNARD PEACH (1951), Ph.D.  
*Assistant Professor of Philosophy* 924 Lambeth Circle, Poplar Apartments
- RICHARD LEHMER PEARSE (1938), M.D.  
*Instructor in Obstetrics and Gynecology* 1325 Arnette Avenue
- TALMADGE LEE PEELE (1939), M.D.  
*Associate Professor of Anatomy, and Assistant Professor of Medicine* E2B University Apartments
- KENNETH E. PENROD (1950), Ph.D.  
*Associate Professor of Physiology and Pharmacology,  
 and Assistant to the Dean of the School of Medicine* 1815 Hillcrest Drive
- EDMUND FRANKLIN PERRY (1950), Ph.D.  
*Instructor in Undergraduate Religion* 7 Alastair Apartments, 300 Swift Avenue
- HAROLD SANFORD PERRY (1932), Ph.D.  
*Associate Professor of Botany* 2302 Cranford Road
- ELBERT LAPSLEY PERSONS (1930), M.D.  
*Associate Professor of Medicine, and Associate Professor of  
 Preventive Medicine and Public Health* 723 Anderson Street

\* Resigned, August 31, 1952.

- WALTER SCOTT PERSONS (1930), A.B.  
*Assistant Professor of Physical Education* 612 Swift Avenue
- RUTH LOHMANN PESCHEL (1951), M.D.  
*Associate in Medicine* 2306 Pershing Street
- RAY C. PETRY (1937), Ph.D., LL.D.  
*Professor of Church History* 128 Pinecrest Road
- OLAN LEE PETTY (1952), Ph.D.  
*Assistant Professor of Education* 115 Faculty Apartments, East Campus
- JOHN BERNARD PFEIFFER, JR. (1949), M.D.  
*Assistant Professor of Medicine* University Apartments
- JAMES HENRY PHILLIPS (1946), Ph.D.  
*Assistant Professor of Biblical Literature* 2519 Perkins Road
- \*RICHARD H. PHILLIPS (1950), M.D.  
*Associate in Psychiatry* 2515 Pickett Road
- JANE PHILPOTT (1951), Ph.D.  
*Assistant Professor of Botany* 804 Fourth Street
- MARSHALL IVEY PICKENS (1932), M.A.  
*Lecturer in Hospital Administration* 2000 Beverly Drive, Charlotte, N. C.
- HENRY FLOYD PICKETT (1935), A.B.  
*Instructor in Medical Art and Illustration, and Photographer* 2506 Cornwallis Road
- KENNETH LEROY PICKRELL (1944), M.D.  
*Professor of Plastic Surgery* 3 Sylvan Road
- †IRVING PINE (1949), M.D.  
*Associate in Psychiatry* 1701 Englewood Avenue
- VICTOR A. POLITANO (1952), M.D.  
*Instructor in Urology* 500 East Markham Avenue
- HILDA PERSONS POPE (1948), Ph.D.  
*Assistant Professor of Bacteriology* 802 Louise Circle, Poplar Apartments
- †FRANCIS ROSS PORTER (1930), B.S.  
*Superintendent of the Hospital and Professor of Hospital Administration* Hillsboro, N. C.
- MARY ALVERTA POSTON (1930), A.M.  
*Associate in Bacteriology* 512 Watts Street
- \*\*MARY POTEAT (1935), Ph.D.  
*Assistant Professor of English* 103 Faculty Apartments
- BENJAMIN E. POWELL (1946), Ph.D.  
*Librarian* 3609 Hathaway Road, Hope Valley
- LEON W. POWELL, JR. (1952), M.D.  
*Instructor in Pathology* East Club Boulevard
- CHARLES E. PRALL (1949), Ph.D.  
*Visiting Lecturer in Hospital Administration* 1001 Hill Street, Greensboro, N. C.
- LANIER WARD PRATT (1940), M.A.  
*Instructor in Romance Languages* 2007 Ruffin Street
- RICHARD LIONEL PREDMORE (1950), D.M.L.  
*Professor of Romance Languages* 2413 Perkins Road
- JAMES L. PRICE, JR. (1952), Ph.D.  
*Assistant Professor of Undergraduate Religion* 915 Arnette Avenue

\* Resigned, December 31, 1951.

† Resigned, March 1, 1952.

‡ Absent on leave, October 1, 1952 to December 1, 1953.

\*\* Absent on sabbatical leave, spring semester, 1952-53.

- JAMES MINETREE PYNE (1949), B.S.  
*Associate in Hospital Administration and  
 Assistant Superintendent of the Hospital* 1832 Forest Road
- GEORGE JUSTICE RACE (1951), M.D.  
*Associate in Pathology* 809 Louise Circle, Poplar Apartments
- \*JACKSON V. RAMBEAU (1949), Ph.B., Colonel, U. S. Air Force  
*Associate Professor of Air Science* 2421 Perkins Road
- RICHARD BEVERLY RANEY (1934), M.D.  
*Lecturer in Orthopaedic Surgery* 1110 Shepherd Street
- ROBERT STANLEY RANKIN (1927), Ph.D.  
*Professor of Political Science* 1107 Knox Street
- WATSON SMITH RANKIN (1932), M.D., D.Sc. 2049 Briarwood Road, Charlotte, N. C.  
*Visiting Lecturer in Hospital Administration*
- EDWARD SHORE RAPER (1934), A.B.  
*Instructor in Hospital Administration* 2317 Club Boulevard
- JOSEPHINE RAPPAFORT (1952), R.N., M.A.  
*Assistant Professor of Nursing Education* 101 Faculty Apartments
- BENJAMIN ULYSSES RATCHFORD (1928), Ph.D.  
*Professor of Economics* 133 Pinecrest Road
- ALBERT E. RAUH (1949), M.D.  
*Associate in Neurology* Roanoke, Va.
- †LEONARD J. RAVITZ (1950), M.D.  
*Associate in Psychiatry* Roanoke, Va.
- BENJAMIN SMITH READ (1952), B.A., Major, U. S. Marine Corps  
*Assistant Professor of Naval Science* 1023 Lakewood Avenue
- ISRAEL THOMAS REAMER (1931), Ph.G.  
*Associate in Pharmacy* 2114 Woodrow Street
- KENNETH JAMES REARDON (1947), A.M.  
*Associate Professor of English* 2610 Duke Homestead Road
- FREDERICK JEROME REED (1935), M.E., M.S.  
*Associate Professor of Mechanical Engineering* 2203 Englewood Avenue
- †ENNIS SAMUEL REES (1949), Ph.D.  
*Instructor in English* 1813 Hillcrest Drive
- ROBERT JAMES REEVES (1930), M.D.  
*Professor of Radiology* 920 Anderson Street
- \*\*EDWIN KELSEY REGEN (1951), B.D., D.D.  
*Visiting Lecturer in Practical Theology* 1106 Watts Street
- HUGO MANLEY REICHARD (1951), Ph.D.  
*Instructor in English* Duke University Apartments
- MRS. WALLY REICHENBERG-HACKETT (1946), Ph.D.  
*Assistant Professor of Psychology* Route 1, Erwin Road
- FREDERICK P. RENKEN (1950), B. Arch., Major, U. S. Air Force  
*Assistant Professor of Air Science* 2523 State Street
- †THOMAS EUGENE RENTZ (1949; 1951), M.A.  
*Instructor in Romance Languages* 2252 Cranford Road
- JOSEPH BANKS RHINE (1927), Ph.D.  
*Director of Parapsychology Laboratory* 908 West Club Boulevard

\* Resigned, October 16, 1952.

† Resigned, December 31, 1952.

‡ Resigned, August 31, 1952.

\*\* Fall semester, 1952-53.



- \*CLAUDE HENRY RICHARDS, JR. (1946), Ph.D.  
*Assistant Professor of Political Science* 880 Louise Circle, Poplar Apartments
- BARBARA JANE RIEBEL (1951), M.S.  
*Instructor in Physical Education* 806 West Club Boulevard
- \*PETER RIESER (1951), Ph.D.  
*Research Associate in Zoology* 881 Louise Circle, Poplar Apartments
- \*JOSEPH CLARKE ROBERT (1938), Ph.D.  
*Professor of History* 1102 B Street
- HENRY STOUTTE ROBERTS, JR. (1948), Ph.D.  
*Associate Professor of Zoology* Box 221, Route 5
- JOHN HENDERSON ROBERTS (1931), Ph.D.  
*Professor of Mathematics* 2813 Legion Avenue
- WILLIAM M. ROBERTS (1950), M.D.  
*Lecturer in Orthopaedics* Gastonia, N. C.
- †CHARLES B. ROBESON (1952), Ph.D.  
*Visiting Lecturer in Political Science* Chapel Hill, N. C.
- ELIOT H. RODNICK (1949), Ph.D.  
*Professor of Psychology, and Director of Clinical Training in Psychology* 2806 Legion Avenue
- E. STANFIELD ROGERS (1952), M.D.  
*Assistant Professor of Pathology* 602 Ruby Street
- ROBERT SAMUEL ROGERS (1937), Ph.D., F.A.A.R.  
*Professor of Latin* 148 Pinecrest Road
- THEODORE ROPP (1938), Ph.D.  
*Associate Professor of History* 302 Woodridge Drive
- JESSE LEE ROSE (1936), Ph.D.  
*Associate Professor of Latin and Greek* East Campus
- NORMAN F. ROSS (1937), D.D.S.  
*Associate in Dentistry* Chelsea Circle, Hope Valley
- ROBERT ALEXANDER ROSS (1930), M.D.  
*Lecturer in Obstetrics and Gynecology* 818 Anderson Street
- DONALD FRANCIS ROY (1950), Ph.D.  
*Assistant Professor of Sociology* 904 Shepherd Street
- MARVIN PIERCE RUCKER (1941), M.D., LL.D.  
*Lecturer in Obstetrics and Gynecology* Richmond, Va.
- †JOHN JESSE RUDIN, II (1945), Ph.D.  
*Associate Professor of Speech* 1019 Rosehill Avenue
- MABEL F. RUDISILL (1948), Ph.D.  
*Associate Professor of Education* 213 West Markham Avenue
- \*VICTOR JOHN RUDOLPH (1948), D.F.  
*Assistant Professor of Forest Management* 617 Swift Avenue
- JULIAN MEADE RUFFIN (1930), M.D.  
*Professor of Medicine* 816 Anderson Street
- RALPH WAYNE RUNDLES (1945), Ph.D., M.D.  
*Associate Professor of Medicine* 132 Pinecrest Road
- REAMES HAWTHORNE SALES (1949), B.D., Ph.D.  
*Instructor in Undergraduate Religion* 2800 University Drive

\* Resigned, August 31, 1952.

† Fall semester, 1952-53.

‡ Absent on sabbatical leave, spring semester, 1952-53.

MURIEL I. SANDEEN (1950), Ph.D. <i>Instructor in Zoology</i>	806 West Club Boulevard
CHARLES RICHARD SANDERS (1937), Ph.D. <i>Professor of English</i>	103 Pinecrest Road
MRS. EUGENIA CURTIS SAVILLE (1947), M.A. <i>Assistant Professor of Music</i>	1103 Anderson Street
LLOYD BLACKSTONE SAVILLE (1946), Ph.D. <i>Associate Professor of Economics</i>	1103 Anderson Street
JOHN HENRY SAYLOR (1928), Ph.D. <i>Professor of Chemistry</i>	707 West Club Boulevard
THOMAS ANTON SCHAFER (1950), B.D. <i>Assistant Professor of Historical Theology</i>	903 West Proctor Street
CLARENCE HENRY SCHEITTLER (1946), Ph.D. <i>Associate Professor of Sociology</i>	119 Pinecrest Road
HERMAN MAX SCHIEBEL (1939), M.D. <i>Associate in Surgery</i>	1020 Anderson Street
*JAMES F. SCHIEVE (1949), D.V.M., M.D. <i>Instructor in Medicine</i>	2312 Wilson Street
KNUT SCHMIDT-NIELSEN (1952), Mag.Sc., Ph.D. <i>Professor of Zoology</i>	2402 Chapel Hill Road
FRANCIS XAVIER SCHUMACHER (1937), B.S. <i>Professor of Forestry</i>	6 Sylvan Road
THEODORE B. SCHWARTZ (1948), M.D. <i>Associate in Medicine</i>	854 Louise Circle, Poplar Apartments
ESTHER LOUISE SCHWERMAN (1947), Ph.D. <i>Assistant Professor of English</i>	909 Lambeth Circle, Poplar Apartments
GEORGE WILLIAM SCHWERT, JR. (1946), Ph.D. <i>Associate Professor of Biochemistry</i>	611 Hammond Street
WILL CAMP SEALY (1946), M.D. <i>Associate Professor in Charge of Thoracic Surgery Division</i>	2232 Cranford Road
WALTER JAMES SEELEY (1925), E.E., M.S. <i>Professor of Electrical Engineering</i>	1005 Urban Avenue
DAVID GORDON SHARP (1939), Ph.D. <i>Associate Professor of Biophysics in Experimental Surgery, and Biophysicist to Duke Hospital</i>	202 Francis Street
LAMBERT ARMOUR SHEARS (1927), Ph.D. <i>Associate Professor of German</i>	804 Yancey Street
MILDRED MARGUERITE SHERWOOD (1930), R.N. <i>Associate in Pediatric Nursing</i>	Hanes House
JOHN HERMAN SHIELDS (1926), A.M. <i>Associate Professor of Accounting</i>	1315 Vickers Avenue
WILLIAM WARNER SHINGLETON (1947), M.D. <i>Assistant Professor of Surgery</i>	1510 Carolina Avenue
ELWOOD BRENT SHIRLING (1952), M.S. <i>Instructor in Botany</i>	872 Louise Circle, Poplar Apartments
JOSEPH ROBERT SHOENFIELD (1952), B.S.E., M.S. <i>Instructor in Mathematics</i>	1010 West Trinity Avenue
†ZACHARIAH S. SIKES, JR. (1950), M.D. <i>Associate in Psychiatry</i>	Duke Hospital

\* Resigned, June 30, 1952.

† Resigned, December 31, 1951.

- GEORGE ADDISON SILVER, III (1946), M.D.  
*Associate in Psychiatry* 2005 Arbor Street
- \*SEYMOUR BERTRAM SILVERMAN (1950), M.D.  
*Associate in Pathology* 2724 Stuart Drive
- EDWARD CHRISTIAN SIMMONS (1947), Ph.D.  
*Professor of Economics* 2510 Perkins Road
- WILLIAM HAYS SIMPSON (1930), Ph.D.  
*Associate Professor of Political Science* 1406 Dollar Avenue
- WILLIAM VANCE SINGLETARY (1948), M.D.  
*Instructor in Medicine* 306 South Gregson Street
- MARY CLYDE SINGLETON (1950), B.S., R.P.T.T.  
*Instructor in Physical Therapy* 2039 Englewood Avenue
- BENJAMIN SMITH SKINNER (1946), M.D.  
*Instructor in Pediatrics* 403 Jackson Street
- †JAMES MATTHEW SLAY (1946), M.A.  
*Instructor in Education* 1222 Arnette Avenue
- ALBERT G. SMITH (1951), M.D.  
*Associate in Pathology* 886 Louise Circle, Poplar Apartments
- DAVID TILLERSON SMITH (1930), M.D., Litt.D.  
*Professor of Bacteriology, and Associate  
Professor of Medicine* 3437 Dover Road, Hope Valley
- \*DOROTHY MARY SMITH (1950), R.N., M.Ed.  
*Assistant Professor of Nursing Education, and Director,  
Division of Nursing Education* 205 Cornwallis Road
- FRANK M. SMITH (1951), M.A., Captain, U. S. Air Force  
*Assistant Professor of Air Science* 1425 Pennsylvania Avenue
- GROVER C. SMITH, JR. (1952), Ph.D.  
*Instructor in English* 866 Louise Circle, Poplar Apartments
- HILRIE SHELTON SMITH (1931), Ph.D., D.D., Litt.D.  
*Professor of American Religious Thought* Manchester Apartments  
813 Second Street
- ROBERT SIDNEY SMITH (1932), Ph.D.  
*Professor of Economics* 2236 Cranford Road
- †MRS. SUSAN GOWER SMITH (1930), M.A.  
*Associate in Nutrition* 3437 Dover Road, Hope Valley
- MARY HELEN SNIVELY (1930), M.A., A.N.A.  
*Associate in Anesthesiology* 2913 Horton Road
- WILLIAM BREWSTER SNOW (1948), Sc.D.  
*Associate Professor of Civil Engineering* 1022 West Trinity Avenue
- RAYMOND STEPHEN SORENSEN (1952), M.S. in P.E.  
*Instructor in Physical Education* 1211 Ruffin Street
- JOSEPH JOHN SPENGLER (1934), Ph.D.  
*Professor of Economics* 2240 Cranford Road
- \*\*HERTHA D. E. SPONER (1935), Ph.D.  
*Professor of Physics* 3309 Avon Road, Hope Valley
- DALE FISHER STANSBURY (1946), J.S.D.  
*Professor of Law* 1008 West Trinity Avenue
- HELEN STARKE (1948), M.D.  
*Instructor in Medicine* Cole Mill Road

\* Resigned, August 31, 1952.

† Resigned, July 31, 1952.

‡ Absent on leave from November 1, 1952 to May 1, 1953.

\*\* Absent on leave, 1952-53.

- EUGENE ANSON STEAD, JR. (1947), M.D.  
*Florence McAlister Professor of Medicine* 2122 Myrtle Drive
- FRANK H. STELLING (1952), M.D.  
*Lecturer in Orthopaedic Surgery* Shriners Hospital, Greenville, S. C.
- CHARLES RONALD STEPHEN (1950), M.D.C.M., D.A., R.C.P.&S.  
*Professor of Anesthesiology and Chief Anesthetist* 1509 Carolina Avenue
- DAVID B. STEVENS (1951), LL.B., Captain, U. S. Air Force  
*Instructor in Air Science* 2121 Sprunt Street
- HARRY R. STEVENS (1947), Ph.D.  
*Assistant Professor of History* University Apartments
- WILLIAM FRANKLIN STINESPRING (1936), Ph.D.  
*Professor of Old Testament* 1107 Watts Street
- FREDERICK WILLIAM STOCKER (1943), M.D.  
*Associate Professor of Ophthalmology* 1124 Forest Hills Boulevard
- CARL HENRY STOLTENBERG (1951), Ph.D.  
*Assistant Professor of Forest Economics* 879 Louise Circle, Poplar Apartments
- \*EDWARD STONE (1949), Ph.D.  
*Instructor in English* 1011 Lamond Avenue
- \*HARRIETTE STRIPLING (1950), Doctor de l'université  
*Visiting Instructor in Romance Languages* 1507 West Pettigrew Street
- HOWARD AUSTIN STROBEL (1948), Ph.D.  
*Assistant Professor of Chemistry* 2332 Huron Circle
- †WIPPERT ARNOT STUMPF (1948), Ph.D.  
*Associate Professor of Education* 127 Pinecrest Road
- CHARLES WOODROW STYRON (1946), M.D.  
*Associate in Medicine* 204 East Park Drive, Raleigh, N. C.
- HERBERT WILFRID SUGDEN (1929), Ph.D.  
*Assistant Professor of English* H3C University Apartments
- ROBERT BURKE SUITT (1940), M.D.  
*Assistant Professor of Psychiatry* 1311 Dollar Avenue
- †ELIZABETH READ SUNDERLAND (1939-42; 1943), Ph.D.  
*Associate Professor of Art* Alastair Apartments
- \*GEORGE FRASER SUNDERLAND (1948), M.D.  
*Associate Professor of Psychiatry* Forest Hills Boulevard
- LOUIS EARL SWANSON (1949), A.B.  
*Associate in Hospital Administration, and  
 Assistant Supervisor of the Hospital* 2610 Shenandoah Avenue
- \*\*BYRON R. SWITZER (1949), B.S., Colonel, U. S. Air Force  
*Professor of Air Science* 2402 Chapel Hill Road
- CHARLES SACKETT SYDNOR (1936), M.A. (Oxon.), Ph.D., Litt.D.  
*Professor of History* 116 Pinecrest Road
- CHESTER R. TAYLOR (1951)  
*Associate in Experimental Surgery* 519 East Club Boulevard
- †HARVEY GRANT TAYLOR (1940), M.D.  
*Associate Professor of Pediatrics and Bacteriology, and  
 Assistant Dean of Medical School* Route 2, Hillsboro, N. C.
- HAYWOOD MAURICE TAYLOR (1930), Ph.D.  
*Associate Professor of Biochemistry, and Professor of Toxicology* 2620 University Drive

\* Resigned, August 31, 1952.

† Absent on leave, spring semester, 1951-52.

‡ Absent on leave, 1952-53.

\*\* Resigned, July 1, 1952.

- \*JOSEPH MILLER THOMAS (1930), Ph.D.  
*Professor of Mathematics* 2215 Cranford Road
- WALTER LEE THOMAS, JR. (1932-35; 1937-42; 1945), M.D.  
*Associate Professor of Obstetrics and Gynecology* 3615 Dover Road, Hope Valley
- EDGAR TRISTRAM THOMPSON (1935), Ph.D.  
*Professor of Sociology* 138 Pinecrest Road
- \*FREDERICK A. THOMPSON, JR. (1950), M.D.  
*Instructor in Medicine* 2510 Shenandoah Avenue
- \*THOMAS G. THURSTON (1951), M.D.  
*Instructor in Radiology* Salisbury, N. C.
- BARNEY FOREMAN TIMMONS (1952), M.D.  
*Instructor in Otolaryngology* 905 Lambeth Circle, Poplar Apartments
- ELIAS TORRE (1951), M.A.  
*Assistant Professor of Romance Languages* 1121 Anderson Street
- EUGENE J. TOWBIN (1952), M.D.  
*Instructor in Medicine* Duke University
- MARTIN BICE TRAVIS, JR. (1949), Ph.D.  
*Assistant Professor of Political Science* 1405 Watts Street
- JAMES NARDIN TRUESDALE (1930), Ph.D.  
*Associate Professor of Greek* 2804 Erwin Road, Poplar Apartments
- MRS. VIOLET HORNER TURNER (1943), M.D.  
*Assistant Professor of Obstetrics and Gynecology* 2106 Cole Road
- LUELLA JANE UHRHANE (1947), R.N., M.P.H.  
*Assistant Professor of Health Education* 208 Faculty Apartments
- CHARLES ROWE VAIL (1939), M.S. (E.E.)  
*Assistant Professor of Electrical Engineering* 900 Dacian Avenue
- F. JOHN VERNBERG (1951), Ph.D.  
*Instructor in Zoology* 932 Lambeth Circle, Poplar Apartments
- FRANCISCO A. VIAU (1952), M.D.  
*Instructor in Medicine* 2308 Pratt Street
- CLEMENT VOLLMER (1926), Ph.D.  
*Professor of German* 2114 Myrtle Drive
- HERBERT VON BECKERATH (1935), Ph.D.  
*Professor of Economics and Political Science* Eaton Road, Hope Valley
- WARREN CHASE VOSBURGH (1928), Ph.D.  
*Professor of Chemistry* 2319 Englewood Avenue
- †CARL M. VOYLES, JR. (1950), M.D.  
*Instructor in Medicine* 1112 Buchanan Boulevard
- ALBERT EDWARD WACKERMAN (1938), M.F.  
*Professor of Forest Utilization* 3610 Dover Road, Hope Valley
- JAMES ELIAS WALTER (1950), I.A.  
*Instructor in Economics* 214 Swift Avenue
- ARLEY JOHN WALTON (1948), B.S.L., D.D.  
*Associate Professor of Practical Theology, and Director of Field Work* 803 Second Street
- LORING BAKER WALTON (1929), Lic. ès L., Ph.D.  
*Professor of Romance Languages* 2235 Cranford Road
- DAVID M. K. WANG (1952), M.D.  
*Instructor in Medicine* Duke University

\* Absent on sabbatical leave, fall semester, 1952-53.

† Resigned, August 31, 1952.



CALVIN LUCIAN WARD (1952), Ph.D. <i>Instructor in Zoology</i>	801 Third Street
CHARLES EUGENE WARD (1927), Ph.D. <i>Professor of English</i>	2429 Perkins Road
JAMES VAUGHN WARREN (1952), M.D. <i>Professor of Medicine, and Chief of Medical Service, Veterans Administration</i>	University Apartments
*JOHN RUSH WARREN (1946), Ph.D. <i>Assistant Professor of Botany</i>	2002 Ruffin Street
†WILLIAM THURMAN WATKINS, JR. (1950), M.D. <i>Instructor in Dermatology and Syphilology</i>	2509 Glendale Avenue
GEORGE ARCHIBALD WATSON, JR. (1950), M.D. <i>Instructor in Pediatrics</i>	306 South Gregson Street
RICHARD LYNNESS WATSON, JR. (1939), Ph.D. <i>Associate Professor of History</i>	109 Pinecrest Road
VERNON ELGIN WAY (1930), A.M., M.A. <i>Assistant Professor of Greek</i>	918 Urban Avenue
BAILEY DANIEL WEBB (1949), M.D., Ph.D. <i>Instructor in Pediatrics</i>	317 West Trinity Avenue
KENNETH DURHAM WEEKS (1947), M.D. <i>Instructor in Medicine</i>	1605 West Thomas Street, Rocky Mount, N. C.
HENRY WEITZ (1950), Ed.D. <i>Associate Professor of Education</i>	517½ South Duke Street
PAUL WELSH (1948), Ph.D. <i>Assistant Professor of Philosophy</i>	102 Faculty Apartments
JOSEPH CABLE WETHERBY (1947), M.A. <i>Assistant Professor of English</i>	2306 Prince Street
LEWIS ELBERT WETHINGTON (1951), Ph.D. <i>Assistant Professor of Undergraduate Religion</i>	2614 Cascadilla Street
GEORGE WILLARD WHARTON, JR. (1939), Ph.D. <i>Associate Professor of Zoology</i>	1202 Oval Drive
ARTHUR REMINGTON WHITE, JR. (1951), B.S. in C.E. <i>Instructor in Civil Engineering</i>	Box 4, Route 1
‡JOSEPH WARREN WHITE (1946), M.D. <i>Lecturer in Orthopaedic Surgery</i>	Duke Hospital
MRS. MARIE ANNE UPDIKE WHITE (1930), A.M. <i>Assistant Professor of English</i>	1208 Dwire Place
MRS. EUGENIA REMELIN WHITRIDGE (1947), Ph.D. <i>Assistant Professor of Sociology</i>	Box 6326, College Station
RUTH JANET WIEN (1949), M.S. <i>Assistant Professor of Social Service</i>	University Apartments
**KARL MILTON WILBUR (1946), Ph.D. <i>Professor of Zoology</i>	3409 Chapel Hill Road
LESLIE CLIFFORD WILBUR (1949), B.S., M.S. <i>Instructor in Mechanical Engineering</i>	1208 East Geer Street
RALPH SYDNEY WILBUR (1933), B.S. in M.E., M.E. <i>Professor of Mechanical Engineering</i>	1018 Demerius Street
PELHAM WILDER, JR. (1949), Ph.D. <i>Assistant Professor of Chemistry</i>	2525 Glendale Avenue

\* Absent on leave, 1952-53.

† Resigned, August 31, 1952.

‡ Resigned, February 1, 1952.

\*\* Absent on leave, 1952-53.

- WILLIAM EDGAR WILKINSON (1949), M.D.  
*Professor of Military Science and Tactics, and  
 Associate in Psychiatry* 1204 Ruffin Street
- CLAIRE WILLIAMS (1951), B.S., M.A. in P.E.  
*Instructor in Physical Education* 211 Faculty Apartments
- D. MCGREGOR WILLIAMS (1947), B.S.  
*Lecturer in Preventive Medicine and Public Health* 1107 Alabama Avenue
- JAMES WESLEY WILLIAMS (1937), A.B., B.S. in C.E., M.S.  
*Assistant Professor of Civil Engineering* 206 Swift Avenue
- PHILIP WILLIAMS, JR. (1949), Ph.D.  
*Assistant Professor of English* 808 Louise Circle, Poplar Apartments
- \*H. STUART WILLIS (1951), M.D.  
*Visiting Lecturer in Medicine* McCain, N. C.
- EDWARD PIERCE WILSON, JR. (1951), B.S., Lieutenant, U. S. Navy  
*Assistant Professor of Naval Science* Randolph Road
- FLORENCE KISSICK WILSON (1946), R.N., M.A.  
*Professor of Nursing Education* Faculty Apartments
- FREDERICK ELIPHAZ WILSON (1923), A.M.  
*Associate Professor of German* 1020 Demerius Street
- JENNET WILSON (1952), R.N., B.S.  
*Instructor in Obstetrics* Hanes House
- ROBERT RENBERT WILSON (1925), Ph.D., LL.D.  
*Professor of Political Science* 717 Anderson Street
- WILLIAM PRESTON WILSON (1950), M.D.  
*Associate in Psychiatry* Hillandale Road
- THOMAS G. WINNER (1948), Ph.D.  
*Assistant Professor of Russian Language and Literature* 1813 Hillcrest Drive
- LOREN RALPH WITHERS (1949), M.S.  
*Assistant Professor of Music* 8 Duke University Apartments
- FREDERICK ADOLPHUS WOLF (1927), Ph.D.  
*Professor of Botany* 924 Urban Avenue
- JAMES HENRY WOOD (1952), M.A.  
*Assistant Professor of Music* 635 Cranford Avenue
- BARNES WOODHALL (1937-43; 1945), M.D.  
*Professor of Neurosurgery* 4006 Dover Road, Hope Valley
- †JAMES W. WOODS (1949), M.D.  
*Instructor in Medicine* 2409 Englewood Avenue
- ROBERT HILLIARD WOODY (1929), Ph.D.  
*Associate Professor of History* 2648 University Drive
- MRS. ELEANOR JANE HERRING WOOTEN (1950), M.D.  
*Instructor in Pediatrics* 817 Hillsboro Street, Raleigh, N. C.
- DEWITT WRIGHT (1943), J.D.  
*Associate in Hospital Administration, and  
 Assistant Superintendent of the Hospital* Box 74, Route 1
- WARREN GRICE YATES (1949), A.M.  
*Instructor in German* 409 Carver Street
- DAVID A. YOUNG (1946), M.D.  
*Lecturer in Psychiatry* Raleigh, N. C.

\* Resigned, August 31, 1952.

† Resigned, May 15, 1952.

## INSTRUCTIONAL STAFF

45

- WILLIAM F. YOUNG (1952), LL.B.  
*Visiting Lecturer in Law* Apartment 1, 201 West Geer Street
- KARL EDWARD ZENER (1928), Ph.D.  
*Professor of Psychology* Route 2, Sparger Road
- HAROLD ZINK (1952), Ph.D.  
*Visiting Professor of Political Science* Duke University
- HALINA ZUKOWSKI (1950), R.N., B.S., M.L.  
*Assistant Professor of Psychiatric Nursing* Poplar Apartments

## PART-TIME INSTRUCTORS

- ELBERT V. BOWDEN (1952), M.A.  
*Economics* 708 Birch Avenue
- FRANK O. BOWMAN, JR. (1952), B.S.  
*Geology* University of N. C., Chapel Hill, N. C.
- WILLIAM WARD BROWN (1949), Ph.D.  
*Physics and Research Associate* Apartment 2, Markham and Fifth Streets
- EDWARD REAP BUCKNER (1950), A.B.  
*Mathematics* 322 West Rosemary St., Chapel Hill, N. C.
- OLEN KENNETH CAMPBELL (1952), M.A.  
*Education* Men's Graduate Center
- RUTH CAMPBELL (1952), M.A.  
*Romance Languages* 1105 North Gregson Street
- H. LAWRENCE CLEVER (1952), Ph.D.  
*Chemistry and Research Associate* 1515½ Cole Mill Road
- BOYD LEE DANIELS (1952), B.D.  
*Undergraduate Religion* 1018 Buchanan Boulevard
- GEORGE ARTHUR DELHOMME, JR. (1950), M.A.  
*Latin* 1503 Miami Boulevard
- MRS. ELIZABETH W. GRANT (1952), M.A.  
*Romance Languages* 904 Second Street
- HUGH MARSHALL HALL (1952), Ph.D.  
*Political Science and Research Associate* Apartment A4, 814 Green Street
- JOHN HERBERT HODGES (1952), B.S.  
*Mathematics* Box 1072, Men's Graduate Center
- JOHN MCDADE HOWELL (1952), M.A.  
*Political Science* 1601 Duke University Road
- WILLIAM R. KRIGBAUM (1952), Ph.D.  
*Chemistry and Research Associate* 863 Louise Circle, Poplar Apartments
- ROBERT L. LARKIN (1952), M.A.  
*English* Apartment E-18, Westover Park
- RALPH CLAUDE MOBLEY (1952), Ph.D.  
*Physics and Research Associate* 1309 Washington Street
- FRANCES MULDROW (1952), M.A.  
*Romance Languages* 1507 West Pettigrew Street
- LAWRENCE E. NOBLE (1952), A.M.  
*Political Science* 207 Men's Graduate Center
- JOHN BURRELL OLIVER (1951), A.M.  
*History* 207 Men's Graduate Center

- WALTER H. PEARCE (1952), A.M.  
*Economics* 3335 Chapel Hill Road
- THOMAS EUGENE RENTZ (1949; 1951), M.A.  
*Romance Languages* 2252 Cranford Road
- ANGEL RUBIO (1952), A.B.  
*Romance Languages* 1023 West Trinity Avenue
- MRS. TOBALEE ISAACS SCHATZBERG  
*Mathematics* 1004 Shepherd Street
- CALVIN C. SMITH (1952), M.A.  
*English* Men's Graduate Center
- WILLIAM RODGER SMYTHE, JR. (1950), A.M.  
*Mathematics* 1115 West Chapel Hill Street
- EUGENE H. THOMPSON (1952), M.A.  
*Romance Languages* 1417 Watts Street
- ROBERT MARSHALL WILLIAMSON (1951), Ph.D.  
*Physics and Research Associate* Box 6, Route 2, Hillendale Road
- DONALD P. WYLIE (1952), M.B.A., J.D.  
*Mathematics* 2602 Augusta Drive

## Legal Aid Clinic

- SUMTER C. BRAWLEY, JR. (1946), LL.B. 2305 Club Boulevard
- MRS. GRACE C. BODDIE (1951), LL.B. 1711 Shawnee Street
- JAMES R. BROWNING (1952), LL.B. Apartment Q-1, 818 Demerius Street
- \*WILLIAM T. GRIST (1951), LL.B. 931 Lambeth Circle, Poplar Apartments
- ALTON J. KNIGHT (1938), LL.B. Fish Dam Road
- JACK C. WOODALL (1951), LL.B. 1405 Vickers Avenue

## Physical Education, Trinity College

- EDMUND McCULLOUGH CAMERON (1926), A.B.  
*Director of Physical Education and Athletics, and  
Assistant Coach of Football* 2818 Chelsea Circle, Hope Valley
- JAMES ROBERT BLY (1949), M.S.  
*Assistant Professor of Physical Education; Coach  
of Soccer; Director, Intramural Athletics* University Apartments
- HAROLD L. BRADLEY (1950), B.S.  
*Instructor in Physical Education; Coach of Basketball* 1903 Washington Street
- HERSCHEL AMOS CALDWELL (1930)  
*Coach of Freshman Baseball, and Assistant Coach  
of Football* 3100 Devon Road, Hope Valley
- ROBERT LEE CHAMBERS (1933), B.S. in Ed.  
*Coach of Varsity Track; Head Trainer* 2311 Prince Street
- †JOHN WESLEY COOMBS (1929), M.A.  
*Instructor in Physical Education; Head Coach of Varsity Baseball* West Campus
- ROBERT CALVIN COX (1942), M.A.  
*Instructor in Physical Education; Assistant Coach of Football;  
Coach of Varsity Tennis* 1826 Guess Road
- CARMEN M. FALCONE (1946), M.A.  
*Assistant Professor of Physical Education; Coach of Varsity Wrestling;  
Assistant in Football* University Apartments

\* Resigned, August 31, 1952.

† Retired, August 31, 1952.

- ELLIS P. HAGLER (1936)  
*Coach of Varsity Golf; Assistant Coach of Football* 220 Forest Wood Drive
- FRANCIS PARKS HARRISON (1947), M.A.  
*Assistant Professor of Physical Education; Assistant Coach of Wrestling* 2511 Pickett Road
- \*DONALD MELVIN HEDSTROM (1949), B.S.  
*Instructor in Physical Education; Coach of Gymnastics* University Apartments
- JOHN WILLIAM HENDRIX (1947), M.S.  
*Instructor in Physical Education; Coach of Varsity Tennis* 1019 Oakland Avenue
- DAN WINFIELD HILL (1945), A.B.  
*Assistant to the Athletic Director* 2527 Glendale Avenue
- †ALFRED M. JOHNS (1951), A.B.  
*Assistant Coach of Football* 801 Third Street
- HUBERT MURRY LEWIS (1937), B.S.  
*Business Manager of Athletics* Pickett Road
- ROBERT JOHN MONTFORT (1940), B.A.  
*Assistant Professor of Physical Education; Assistant Trainer* 3300 Cole Mill Road
- WILLIAM D. MURRAY (1951), A.B.  
*Head Coach of Football* 2106 Myrtle Drive
- THOMAS J. O'BOYLE (1951), B.E. in P.E.  
*Assistant Coach of Football* 107 Watts Street
- CLARENCE MCKAY PARKER (1947)  
*Assistant Coach of Football, and Coach of Baseball* Westover Park Apartments
- WALTER SCOTT PERSONS (1930), A.B.  
*Assistant Professor of Physical Education; Coach of Swimming; Coach of Lacrosse* 612 Swift Avenue
- MARTIN T. PIERSON (1951), M.C.E.  
*Assistant Coach of Football* Poplar Apartments
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- ‡FRANKLIN SIMPSON HICKMAN, Ph.D., D.D.  
*Preacher to the University* 921 West Markham Avenue
- JAMES HENRY PHILLIPS, B.D., Ph.D.  
*Chaplain to the University and Director of Religious Life* 2517 Perkins Road

\* Resigned, February 29, 1952.

† Resigned, November 30, 1951.

‡ Absent on sabbatical leave, fall semester, 1952-53.



ETHELENE SAMPLEY <i>Director of Student Religious Life, Woman's College</i>	Faculty Apartments
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## MUSIC AND ART

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ANTON BREES <i>University Carillonneur</i>	Duke University
PAUL ROBEY BRYAN, M.M. <i>Conductor of the Concert and Marching Bands</i>	Duke University Apartments
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MRS. EUGENIA CURTIS SAVILLE, M.A. <i>Director of the Madrigal Singers</i>	1103 Anderson Street
MRS. JOSEPHINE W. STIPE, A.B. <i>Temporary Art Curator</i>	2114 Club Boulevard
*MARY HELEN STONE, A.B. <i>Art Curator</i>	2114 Club Boulevard

## RESIDENCE

EVELYN BARNES, B.S. <i>Counselor, Alsbaugh House</i>	Alsbaugh House
LEAH BODDIE, A.M. <i>Counselor, Southgate Hall</i>	Southgate Hall
† MIRIAM J. E. BROWN, A.M. <i>Counselor, Southgate Hall</i>	Southgate Hall
JEAN BRACKMAN, A.M. <i>Counselor, Bassett House</i>	Bassett House
DOROTHY J. MARPLE, A.M. <i>Assistant in the Office of the Dean of Undergraduate Women; Counselor, Aycock House</i>	Aycock House
KATHARINE HILL MIMS, A.M. <i>Counselor, Pegram House</i>	Pegram House

\* Absent on leave, 1952-53.

† Resigned, August 31, 1952.

MRS. MARY NORCOTT PEMBERTON <i>Hostess, West Campus</i>	West Campus Union
MRS. HARRIET TAYLOR <i>Counselor, Giles House</i>	Giles House
MARY MOSS WELLBORN, A.M. <i>Counselor, Jarvis House</i>	Jarvis House
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## STUDENT HEALTH

ELBERT LAPSLEY PERSONS, M.D. <i>Director of Student Health</i>	723 Anderson Street
CAROLINE E. HELMICK, M.D. <i>Director of Student Health, Woman's College</i>	East Campus Infirmary
MOZELLE VESTAL, R.N. <i>Resident Nurse, Woman's College</i>	East Campus Infirmary
MRS. BARBARA ALLEN FAWCETT, R.N. <i>Resident Nurse, Woman's College</i>	324 Monmouth Avenue
MRS. OLLIE PHILLIPS BURNETT, R.N. <i>Resident Nurse, West Campus</i>	1404 Arnette Avenue

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JAMES O. COX, JR. <i>Personnel Supervisor, the Dining Halls, Men's Colleges</i>	1209 Dwire Place
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*W. JAMES MILLER, A.B. <i>Assistant to the Manager, the Dining Halls, Men's Colleges</i>	Sparger Road
RUBY MORGAN SHERIDAN, B.S. <i>Service Supervisor, the Dining Halls, Men's Colleges</i>	Poplar Apartments
MRS. THOMAS DELONG, A.B. <i>Manager, the Dining Hall, Southgate Hall</i>	2347 Huron Street
MARVIN G. JOHNSON <i>Personnel Supervisor, the Dining Halls, Woman's College</i>	1304 N. Duke Street
MARTHA ANN MYER, B.S. <i>Assistant Manager, the Dining Halls, Woman's College</i>	Southgate Hall
A. PAULINE SPROUL <i>Student Personnel Supervisor, the Dining Halls</i>	Poplar Apartments

*The University Libraries*

BENJAMIN E. POWELL, Ph.D. <i>Librarian</i>	3609 Hathaway Road, Hope Valley
CARLYLE J. FRAREY, M.S. <i>Assistant Librarian</i>	819 Demerius Street

## UNIVERSITY LIBRARY

MRS. ALICE GEORGE BAUER, A.B., B.S. in L.S. <i>Serials Cataloger</i>	2726 Erwin Road
* Resigned, April 1, 1952.	

MRS. PAULINE C. BEERS, A.B. <i>Assistant, Manuscripts</i>	315 West Trinity Avenue
MARY ELIZABETH BITTING, M.A. <i>Subject Cataloger and Pamphlets Librarian</i>	2105 Club Boulevard
MRS. ELIZA K. BLACKMON, B.A. <i>Assistant in Charge of Binding</i>	2321 Erwin Road
FLORENCE E. BLAKELY, B.A., B.S. in L.S. <i>Reference Librarian</i>	1004 West Trinity Avenue
MRS. THERESA BROWN, A.B. <i>Bibliographer</i>	2000 Arbor Street
MARY WHITFIELD CANADA, A.M. <i>Librarian, Undergraduate Reading Room</i>	1312 Second Street
MRS. JOAN SMITH CLARK <i>Assistant, Rare Books</i>	2729 Brown Avenue
LENA COVINGTON, A.B., A.B. in L.S. <i>Head, Subject Cataloging</i>	403 Watts Street
MILDRED G. EMMONS, B.A. <i>Serials Cataloger</i>	1004 West Trinity Avenue
ESTHER EVANS, A.B., B.S. in L.S. <i>Subject Cataloger</i>	708 Louise Circle
EMERSON FORD, B.D. <i>Assistant, Circulation</i>	308 Holloway Street
MRS. EVELYN K. GADDY <i>Librarian, Physics-Mathematics</i>	Westover Park Apartments
EDWIN J. HIX, B.A., A.B. in L.S. <i>Newspaper and Film Librarian</i>	1915 Bivins Street
MRS. EDWINA D. JOHNSON, B.S. <i>Librarian, Biology-Forestry</i>	608 North Gregson Street
MRS. ETHEL LONG KALE <i>Librarian, Engineering</i>	3325 Chapel Hill Road
DOROTHY F. KIRKLAND, A.B., A.B. in L.S. <i>Descriptive Cataloger</i>	2316 Englewood Avenue
MRS. EDITH V. KRAMER, M.A. <i>Subject Cataloger</i>	2251 Cranford Road
WILHELMINA LEMEN, A.B., A.B. in L.S. <i>Documents Librarian</i>	2714 Shenandoah Avenue
JAY LUVAAS, M.A. <i>Director, George Washington Flowers Collection</i>	2518 Englewood Avenue
PHILIP MCCOURY, B.A. <i>Assistant, Manuscripts</i>	802 Park Avenue
GERTRUDE MERRITT, A.B. <i>Chief, Technical Processing</i>	1028 Monmouth Avenue
EDWARD J. MEYERS <i>Subject Cataloger</i>	102 Forest Wood Drive
MRS. MARGARET E. MILLER <i>Assistant, Circulation</i>	219½ West Trinity Avenue
HELEN E. OYLER, A.B., B.S. in L.S. <i>Head, Serials Section</i>	115 Higbee Street
MARY ELEANOR PARKER, B.A., B.S. in L.S. <i>Descriptive Cataloger</i>	116 Buchanan Boulevard

WIXIE E. PARKER, A.B., B.S. in L.S. <i>Periodicals Librarian</i>	Powe Apartments
MRS. OLGA M. PERLZWEIG, Ph.D. <i>Bibliographer</i>	407 Swift Avenue
MRS. CATHARINE J. PIERCE, M.S. <i>Head, Reference Department</i>	222 Morris Street
MARY E. PLOWDEN, A.B., A.B. in L.S. <i>Head, Order Section</i>	12 Alastair Court, Swift Avenue
CHARLES A. RAEBECK, B.A. <i>Assistant, Circulation</i>	East Oak Drive
MRS. ETHEL ROSE, A.B. <i>Librarian, Graduate Reading Room</i>	East Campus
HONORA L. ROSE <i>Assistant, Order</i>	108 West Geer Street
MATTIE RUSSELL, M.A. <i>Curator of Manuscripts</i>	2209 Woodrow Street
MARY OPAL SHUFORD, A.B., A.B. in L.S. <i>Descriptive Cataloger</i>	805 Sixth Street
THOMAS M. SIMKINS, JR., M.A. <i>Curator of Rare Books</i>	614 North Gregson Street
LENORA RUTH SMITH <i>Librarian, Chemistry</i>	515 West Chapel Hill Street
SHIRLEY STEVENS <i>Assistant, Documents</i>	708 Louise Circle
JANE STURGEON, B.S., B.S. in L.S. <i>Head, Descriptive Cataloguing Section</i>	115 Higbee Street
ELLEN L. SUMNER, M.A. in L.S. <i>Bibliographer</i>	1005 Monmouth Avenue
MRS. BETTY SWOFFORD, A.B. <i>Assistant, Periodicals</i>	819 Third Street
MRS. MARY BUCKINGHAM THOMPSON <i>Assistant, Serials</i>	2829 Chapel Hill Road
MRS. MARGARET THOMSON, D.H. <i>Assistant, Circulation</i>	2243 Cranford Road
J. P. WAGGONER, JR., B.D., B.S. in L.S. <i>Head, Circulation Department</i>	1017 Lakewood Avenue
MRS. BETTY M. WARREN, A.B. <i>Bibliographer</i>	2624 Chapel Hill Road
MARY WESCOTT, A.B., B.S. in L.S. <i>Assistant, Newspapers and Films</i>	903 Sixth Street
MRS. ERMA P. WHITTINGTON, A.B., B.S. in L.S. <i>Subject Cataloger</i>	2011 James Street

## WOMAN'S COLLEGE LIBRARY

EVELYN J. HARRISON, A.B., B.S. in L.S. <i>Librarian</i>	403 Watts Street
MRS. FLORENCE L. FARMER, A.B. <i>Assistant, Circulation</i>	619 West Markham Avenue
MRS. SPEARS HICKS, A.B., B.S. in L.S. <i>Reference Librarian</i>	121 West Seeman Street

## DUKE UNIVERSITY

FLORINE LEWTER, A.B., A.B. in L.S.  
*Periodicals Librarian*

1512 North Duke Street

MARGARET S. TILLET, A.B., A.B. in L.S.  
*Circulation Librarian*

1405 North Mangum Street

CATHERINE V. TYSINGER, A.B., B.S. in L.S.  
*Cataloger*

1013 Oakland Avenue

## DIVINITY SCHOOL LIBRARY

DONN MICHAEL FARRIS, M.S. in L.S.  
*Librarian*

1018 Buchanan Boulevard

JOYCE G. LOCKHART, A.B.  
*Assistant in Divinity Library*

905 Sixth Street

## LAW SCHOOL LIBRARY

\*MARIANNA LONG, A.B., B.S. in L.S.  
*Librarian*

403 Watts Street

MRS. LOIS K. CHAMBERS, B.S. in L.S.  
*Circulation Supervisor*

University Apartments

MADELINE COPELAND, A.B., A.B. in L.S.  
*Cataloger*

1018 Monmouth Avenue

KATHERINE DAY, B.S.  
*Acting Librarian*

512 Watts Street

MRS. JACQUELINE SMITH  
*Assistant, Cataloging*

2511 West Club Boulevard

JEANNE TILLMAN, A.B., B.S. in L.S.  
*Cataloger*

1102 Monmouth Avenue

## MEDICAL SCHOOL LIBRARY

JUDITH FARRAR, A.B., B.S.  
*Librarian*

117 Faculty Apartments

MRS. MILDRED PERKINS FARRAR, A.B.  
*Assistant Librarian*

117 Faculty Apartments

\* Absent on leave, 1952-53.



# Admission to the Colleges



**A**PPPLICANTS may qualify for admission as members of the freshman class or as students with advanced standing. Since the enrollment is limited, the Committee on Admissions selects students who, in its judgment, are best qualified to benefit from the educational advantages which the colleges offer. The Committee bases its decision on the academic record of the applicant, on test scores, and on satisfactory evidence of good character and general fitness for college life at Duke. A personal interview with an officer of the University or a designated alumnus or alumna is of material benefit to the Committee and the applicant.

**ADMISSION TO THE FRESHMAN CLASS:** An applicant for admission to the freshman class must present at least fifteen acceptable units of secondary-school credit. A unit of credit is allowed for a course of study pursued throughout an academic year in an accredited secondary school, provided five recitations a week have been held and the prescribed amount of work has been completed satisfactorily.

*For admission to Trinity College and the Woman's College* twelve of the fifteen units must be in English, foreign language, history,\* and social studies, mathematics, and natural science. They must include three units in English, one unit in algebra, and one unit in plane geometry. The three remaining units may be in the five subjects listed above or they may be selected from the following table. The numeral indicates the maximum amount of unit credit acceptable in each subject:

Agriculture .....	2	Mechanical Drawing .....	2
Art .....	1	Music .....	1
Commercial Subjects .....	3	Physical Geography .....	1
Household Economics .....	2	Woodworking, Machine Work .....	2

Credit for units offered in subjects not included in this list will be considered on the basis of full statements transmitted with the applicant's record from the school recommending him.

*For admission to the College of Engineering* seven of the fifteen units must be in English (3 units), physical science (1 unit), algebra ( $1\frac{1}{2}$  units), plane geometry (1 unit), and solid geometry† ( $\frac{1}{2}$  unit). The remaining eight units are elective. At least five of them must

\* Applicants who do not present two acceptable units of history must take history in college.

† Any deficiency in this requirement must be made up before the beginning of the sophomore year.

be in English, foreign language, history and social studies, mathematics, and natural or physical science. It is recommended that these five be chosen from the following list:

English (in addition to the required 3 units) .....	1 unit
Algebra (in addition to the required 1½ units) .....	½ unit
Trigonometry .....	½ unit
Physics or chemistry or biology (in addition to the required unit) ...	1 to 3 units
Foreign languages .....	1 to 4 units
*History and social studies .....	1 to 3 units

The three additional units needed to make the total of fifteen may be chosen from the subjects listed above or they may be selected at large from the following table, which gives the subjects acceptable for entrance credit and the maximum credit acceptable in each subject:

English .....	4	Zoology .....	1
Latin .....	4	General Biology .....	1
Greek .....	3	Physical Geography .....	1
German .....	3	General Science .....	1
French .....	3	Agriculture .....	2
Spanish .....	3	Mechanical Drawing .....	2
Mathematics .....	4	Shop Work .....	2
History and Civics .....	4	Art .....	1
Physics .....	1	Music .....	1
Chemistry .....	1	Commercial Subjects .....	3
Botany .....	1		

**ADMISSION TO ADVANCED STANDING:** An applicant for advanced standing must have fulfilled the equivalent of the requirements for admission to the freshman class, must present official certificates of all work completed in other institutions, and must have an honorable dismissal from each institution previously attended. Credit for work completed will be determined in relation to the curriculum requirements of the college in which the transfer enrolls at Duke University.

A student who transfers with advanced standing to Trinity College or the Woman's College from a junior college or from a four-year college not affiliated with the Southern or a similar regional association must continue, for at least one semester in Trinity College or in the Woman's College, the foreign language he presents for minimum graduation requirements. Credit for courses in science offered for advanced standing by a transfer from a junior college or a non-affiliated four-year college will be determined by the departments concerned.

Applicants for advanced standing in the College of Engineering should present, as far as possible, subjects corresponding to those required by the college. They may not, during their first semester, register for more than the minimum number of hours required of the class which they enter, except by permission of the Dean of the College of Engineering.

\* Applicants who do not present at least one acceptable unit of history must take history in college.

Transfer credits are tentatively evaluated pending the completion of two semesters of work in residence. To validate provisional credits the student must earn at least an average of C in a normal load of work. Transfer grades of C or above are rated at one quality point per credit hour when validated. Credits with grades of D are not acceptable.

The maximum amount of credit acceptable from a junior college is 60 semester hours, exclusive of physical education. No credit is given for work completed by correspondence, and credit for no more than six semester hours is allowed for extension courses. Any extension work accepted must be specifically approved by the dean of the college to which the student seeks admission.

**ADMISSION OF SPECIAL STUDENTS:** Upon the approval of the dean, students of mature age may be admitted for special work in such courses of instruction as they are qualified to take. They may not be admitted as candidates for a degree in a regular course unless they meet all normal requirements for admission.

**ADMISSION PROCEDURE:** Application for admission to Trinity College and the College of Engineering should be made to the Director of Admissions, Trinity College and the College of Engineering, Duke Station, Durham, North Carolina. Application for admission to the Woman's College should be made to the Director of Admissions, Woman's College, College Station, Durham, North Carolina. Application forms and instructions will be sent to the applicant.

Application prior to the final year of the secondary-school course is not required. Formal steps looking toward admission should be initiated, however, early in the senior year. Applicants for admission are requested to file all credentials by March 1. Candidates for admission to the Woman's College normally will receive notification of the decision of the Committee on Admissions on April 15. Candidates for admission to Trinity College and the College of Engineering will be notified as decisions are made.

A graduate of an accredited school who submits fifteen acceptable units of secondary-school subjects, who is recommended by his principal, and who otherwise meets the requirements of the Committee on Admissions may be admitted without examination. An applicant who presents fifteen acceptable units for admission from a non-accredited school is required to validate these units by entrance examinations and such other tests as the college may prescribe.

**READMISSION OF FORMER STUDENTS:** A student who, following withdrawal from college, desires to return should apply to the appropriate director of admissions. When applying for readmission the student should make a detailed statement of his or her activities since leaving Duke University.

# Financial Information and Living Accommodations



**F**EES paid by the students cover only a part of the cost of their instruction and of the operations of the University. Income from endowment and contributions from the alumni, alumnae, and other public-spirited men and women meet the balance, which constitutes more than half the total cost.

## *Fees*

A registration fee of \$20.00 is required of all new students. This fee is payable only once; it is not refundable. A room deposit of \$25.00 is also required of all new students. A tuition fee of \$175.00 and a general fee of \$75.00 are payable at the beginning of each semester. The general fee is in lieu of special fees usually charged for matriculation, use of laboratories, student health service, commencement, etc. Special fees for instruction in Applied Music are listed on page 104.

Due to rising costs a readjustment in charges, including room-rents, is being considered. In the event of an adjustment applicants will be notified.

An advance deposit of \$25.00 is required of all students in residence at the time of spring registration in order to reserve a place in classes for the fall semester. This is applied toward payment of the general fee at the opening of the fall semester. The deposit will be refunded to students whom the University does not permit to return. Students who of their own volition fail to return are not entitled to a refund.

An advance deposit of \$25.00 is also required of old students who have been out of school for one or more semesters and have been accepted for readmission. It is applied toward payment of the general fee for the semester of readmission. The advance deposit is paid at the time of notification of acceptance and is not refundable.

An Air Force ROTC deposit of \$20.00 is required of students enrolling in Air Science to cover possible loss of military equipment issued to them. This deposit is refunded to the student upon return of issued equipment.

Refunds of tuition and other fees are made to students who withdraw within 14 days after the beginning of the semester. On and

after the fifteenth day all fees are considered as earned and no refunds are made.

Students who register during the regular academic year for no more than two courses with a maximum credit of 8 semester hours are classified as special students. They are charged a registration fee of \$5.00 for each course, and \$12.00 for each semester hour of course credit. Students taking nine or more hours are charged full fees.

Auditors are permitted to attend classes provided they secure the consent of the instructor. They submit no daily work, take no examinations, and receive no credit. Students taking a full program and paying full fees may audit one or more courses without charge. Students not paying full fees are charged \$10.00 for each course each semester.

Students are entitled to one transcript free of charge. Additional copies are supplied at \$1.00 each. Records are not released when the Treasurer's Office reports an unpaid account.

Students may have their bills sent to parents or guardians provided the Treasurer has been notified in writing with sufficient antecedence. Failure of a student or of a parent or guardian to pay bills on the dates scheduled will debar the student from class attendance until his account is settled in full; subsequent withdrawal does not entitle him to a refund. No student is considered by the Faculty as a candidate for graduation until he has settled with the Treasurer for all his indebtedness to the University. A student who has not settled all his bills with the Treasurer is not allowed to stand the final examinations of the academic year.

### *Estimated Expenses for an Academic Year*

Incidental expenses depend upon the tastes and habits of the individual, but the actual necessary expenses for an academic year are as follows:

	<i>Low</i>	<i>Moderate</i>	<i>Liberal</i>
Tuition .....	\$ 350.00	\$ 350.00	\$ 350.00
General Fee .....	150.00	150.00	150.00
Room Rent .....	100.00	125.00	175.00
Board .....	375.00	450.00	500.00
Laundry .....	25.00	30.00	35.00
Books .....	30.00	40.00	50.00
	<u>\$1,030.00</u>	<u>\$1,145.00</u>	<u>\$1,260.00</u>

The actual fees and expenses necessary for one year in residence as a student in Trinity College or the College of Engineering can be met with \$1,030.00.



## *Student Aid*

Duke University is interested in students with ability and ambition. It is the aim of the University Scholarship Committee and others affiliated with the Student Aid Program to provide, insofar as possible, the financial assistance required by worthy students. This assistance takes various forms. The actual cost to the University for each student is more than twice the amount received from the student. The deficit is paid out of contributions and income from endowment. Scholarships and prizes enable students with inadequate resources to reduce the amount payable to the University. Loans are made available, and through the Student Employment Offices part-time jobs are arranged. Through the Student Aid Program an earnest effort is made to eliminate the economic status of the student as a criterion for admission.

## *Scholarships*

Scholarships intended to aid needy and deserving students have been established from time to time by persons deeply interested both in Duke University and in the members of its student body. Scholarship endowments are held in trust and are kept separate from other holdings of the University. All income is applied in accordance with the terms of the gift or bequest.

Scholarships are awarded annually by a committee of the Faculty appointed by the President of the University. In some cases donors have specified certain limitations and conditions, but in all cases final award is made by the University Scholarship Committee.

Any prospective student may apply for a scholarship. Applications, however, may be made formally by a prospective student only after his application for admission has been made, all necessary credentials have been presented, and notification of acceptance has been given. Applications are made by letter; they must include, on a form furnished by the University, a complete statement of the applicant's needs. Since the number of scholarships available is small in comparison with the number of applicants, the committee is forced to limit scholarship aid to cases where the need is imperative.

All applications for scholarship aid should be made to the Executive Secretary, the Scholarship Committee, Office of the Secretary, Duke University, Durham, N. C.

The following scholarship funds are available to undergraduates. Awards, made annually, are based on the scholastic standing, the character, and the need of the applicants. Other factors of interest to the Scholarship Committee are extra-curricular activities, church activities, and general promise of achievement.

**FRED SOULE ALDRIDGE SCHOLARSHIP FUND**

Established December 1947 by gift of Fred S. Aldridge, '98, and Mrs. Fred Aldridge and supplemented by annual contributions from the Durham County Alumni; the income to be used for scholarship aid, preference to be given to young men from Durham County.

**GEORGE G. ALLEN SCHOLARSHIP FUND**

Established July 1947 by gift of George G. Allen; the income to be used for scholarship aid to deserving boys and girls from Warren County, N. C., and, under certain conditions, to other worthy students.

**ALUMNAE SCHOLARSHIP FUND**

Established May 1940 by the Alumnae Association, in connection with the celebration of the Centennial of Duke University; the income to be used for scholarship aid to young women students of the Woman's College.

**ALUMNI MEMORIAL SCHOLARSHIP FUND**

Established December 1943 by several donors, in memory of alumni of Duke University who lost their lives during World War II; the income to be used for scholarship aid to worthy students.

**ATLANTA ALUMNI SCHOLARSHIP FUND**

Established May 1941 by gifts of members of the Alumni Association of Atlanta, Ga.; the income to be used for scholarship aid to worthy students.

**ALICE M. BALDWIN SCHOLARSHIP FUND**

Established June 1945 and supplemented from time to time by gifts from students and alumnae in honor of Alice M. Baldwin, Dean of the Woman's College, 1923-1947; to be used for scholarship aid to undergraduate students in the Woman's College.

**BANKS-BRADSHAW SCHOLARSHIP FUND**

Established 1913 by gift of W. L. Banks and Mike Bradshaw, '78; the income to be used for scholarship aid to worthy students.

**HERBERT J. BASS SCHOLARSHIP**

Established 1900 by gift of Mr. and Mrs. Herbert J. Bass of Durham, N. C., in memory of their son, Herbert J. Bass, Jr.; the income to be used for scholarship aid to worthy students.

**EDGAR S. BOWLING SCHOLARSHIP FUND**

Established 1928 by gift of Edgar S. Bowling, '99, in memory of his sister, Mrs. Maye Bowling Bennett, '12; the income to be used for scholarship aid, preference to be given to boys and girls from Durham and adjoining counties.

**ELIZABETH CROWELL CARNES FOUNDATION**

Established January 1948 by bequest of Elizabeth Crowell Carnes, in memory of her parents, Jonas William Crowell and Virginia Vick Crowell; the income to be used for scholarship aid for young men and women of Duke University.

**CENTENNIAL SCHOLARSHIP FUND**

Established 1939 by gifts from several donors in connection with the Centennial celebration of Duke University; the income to be used for scholarship aid to worthy students.

**CHRISTIAN EDUCATION SCHOLARSHIP FUND**

Established by various contributions designated for scholarships in the Christian Education Movement; includes contributions from Julian S. Carr, Mrs. Annie A. Foushee, C. T. Johnson, H. E. Myers, the Pegram Family, W. P. Suggs, E. T. White, Mr. and Mrs. J. C. Braswell and Mrs. R. C. Bruton, in memory of Alexander Walker; the Alumni of Harnett County, and others; the income to be used for scholarship aid to worthy students.

**CLASS OF 1906 SCHOLARSHIP FUND**

Established July 1937 by gifts from several members of the Class of 1906; the income to be used for scholarship aid to worthy students.

**CLASS OF 1912 SCHOLARSHIP FUND**

Established by gifts from several members of the Class of 1912; the income to be used for scholarships to worthy students.

**CLASS OF 1914 SCHOLARSHIP FUND**

Established December 1938 during the Centennial celebration of Duke University, by various members of the class; the income to be used for scholarship aid to worthy students, preference to be shown to descendants of the members of the Class of 1914.

**CLASS OF 1918 SCHOLARSHIP FUND**

Established by gifts from several members of the Class of 1918; the income to be used for scholarship aid to worthy students.

**E. M. COLE FOUNDATION**

Established 1920 by E. M. Cole, Charlotte, N. C.; the income to be used for scholarships for the benefit of undergraduate students preparing for the ministry.

**ROBERT B. COX SCHOLARSHIP FUND**

Established 1949 by gift of Robert L. Wolf and supplemented by gift of Wright T. Dixon, Jr. The income to be used for scholarship aid to undergraduate men.

**WILL L. CUNINGGIM SCHOLARSHIP**

Established 1934 by bequest of Mrs. W. L. Cuninggim, and supplemented by bequest of Mrs. Albert Bourne, in memory of Reverend Will L. Cuninggim; the income to be used for scholarship aid, preference to be given to graduates of the Methodist Orphanage, Raleigh, N. C.

**ROSE M. DAVIS SCHOLARSHIP FUND**

Established 1941 by Dr. Rose M. Davis; the income to be used for scholarship aid.

**JERE R. DOWNING SCHOLARSHIP FUND**

Established 1936 by Mrs. Alice M. Downing and her son, J. Robert Downing, '35, as a memorial to their husband and father, Jere R. Downing of Kennebunk, Me.; the income to be used for scholarship aid, preference to be given to students from New England.

**DUKE DAD'S DAY SCHOLARSHIP FUND**

Established 1941 by contributions of fathers attending the Duke Dad's meeting; to be used for scholarship aid.

**B. N. DUKE SCHOLARSHIP FUND**

Established 1939 by bequest of Sarah P. Duke in memory of her husband, Benjamin N. Duke; comprised of one-half of the income earned by the bequest of Sarah P. Duke to the B. N. Duke Endowment Fund; to be used for scholarship aid to worthy and needy students of Duke University.

**DUKE UNIVERSITY SUNDRY SCHOLARSHIPS**

Gifts by miscellaneous donors for current use as scholarships.

**ENGINEERING SCHOLARSHIP FUND**

Established by gifts of various persons; to be used for scholarship aid to engineering students.

**WILLIAM P. FEW MEMORIAL SCHOLARSHIP**

Established 1942 by gifts from various persons; to be used for scholarship aid to worthy students.

**ARTHUR ELLIS FLOWERS SCHOLARSHIP**

Established 1901 by Col. and Mrs. George W. Flowers, in memory of their son, Arthur Ellis Flowers; the income to be used for scholarship aid to worthy students.

**GEORGE W. FLOWERS SCHOLARSHIP FUND**

Established June 1927 by gift of Claude M. Flowers, '09, in memory of his father, Col. George W. Flowers, for many years a Trustee of Trinity College; the income to be used for scholarship aid to needy and worthy students.

**ROBERT L. FLOWERS SCHOLARSHIP FUND**

Established May 1939 by gift of R. L. Flowers; income to be used for scholarship aid to worthy students.

**R. L. FLOWERS TRUST SCHOLARSHIP FUND**

Established 1948 by bequest of Lily Parrish Flowers; the income to be used for scholarship aid for worthy students.

**GENERAL UNIVERSITY SCHOLARSHIP FUND**

Miscellaneous gifts from numerous persons; to be used currently for scholarship aid to worthy students.

**GUILFORD COUNTY SCHOLARSHIP FUND**

Established 1941 by miscellaneous gifts of several persons; the income to be used for scholarship aid to worthy students.

**A. H. GWYN SCHOLARSHIP FUND**

Established May 1941 by A. H. Gwyn, '18; the income to be used for scholarship aid to worthy students.

**P. HUBER HANES SCHOLARSHIP FUND**

Established 1939; consisting of  $\frac{3}{5}$  of the income accruing annually to the P. Huber Hanes Fund; to be used for scholarship aid; one scholarship in the Divinity School; two scholarships to members of the families of alumni; and two general scholarships.

**P. HUBER HANES, JR., SCHOLARSHIP FUND**

Established 1939; consisting of  $\frac{1}{5}$  of the income accruing annually to the P. Huber Hanes Fund; to be used for two scholarships for junior or senior students majoring in Business Administration.

**B. D. HEATH SCHOLARSHIP FUND**

Established 1903 by B. D. Heath; to be used for scholarship aid to worthy students from Union County, N. C.

**HIGH POINT SCHOLARSHIP FUND**

Established by gifts of members of the High Point Alumni Association, in connection with the celebration of the Centennial of Duke University; the income to be used for scholarship aid to students who are graduates of the High Point, N. C., High School.

**GEORGE M. IVEY SCHOLARSHIP FUND**

Established December 8, 1948, by gift of George M. Ivey; the income to be used for scholarship aid to deserving students in the Divinity School.

**JONES CHAIR OF ENGINEERING**

Established 1951 by Edwin L. Jones, Sr., '12; Annabel Lambeth Jones, '12; Edwin L. Jones, Jr., '48; Lucille Finch Jones; and the J. A. Jones Construction Company in memory of James Addison Jones and Raymond A. Jones; the income to be used for a professorship and/or for scholarship aid to worthy and qualified students in the College of Engineering.

**HUNTER JONES SCHOLARSHIP FUND**

Established December 1947 by gift of Hunter Jones, '19, Durham, N. C.; the income therefrom to be used for scholarship aid to worthy students.

**HENRY HARRISON JORDAN MEMORIAL SCHOLARSHIP FUND**

Established December 1938 by gifts from George Way, B. Everett Jordan, '18, H. W. Jordan, Charles E. Jordan, '23, Mrs. H. C. Sprinkle, Jr., '24, and Frank B. Jordan, '27, in memory of their father, Reverend Henry Harrison Jordan, a member of the Western North Carolina Conference; the income to be used for scholarship aid to worthy students.

**JOSTEN'S SCHOLARSHIP FUND**

Contributions by Josten's; to be used currently for scholarship aid for worthy students.

**J. M. JUDD SCHOLARSHIP FUND**

Established 1922 by J. M. Judd, '95, of Varina, N. C., with directions that the earnings be allowed to accumulate until such time as they are sufficient to provide a four-year tuition scholarship.

**W. K. KELLOGG FOUNDATION SCHOLARSHIP FUND FOR NURSES**

Established by contribution by the W. K. Kellogg Foundation; the entire sum to be used currently for scholarship aid to students in training in the School of Nursing.



**FRANK S. LAMBETH SCHOLARSHIP FUND**

Established 1930 by bequest of Frank S. Lambeth, '80; the income to be used for scholarship aid to worthy students of Duke University.

**D. M. LITAKER SCHOLARSHIP FUND**

Established 1946 by gift of Charles H. Litaker, '28, in memory of his father, D. M. Litaker, '90, who for 47 years was an active minister in the Methodist Church; the income and, under certain conditions, a part of the corpus of the fund to be used for scholarship aid to undergraduate students, natives of the territory now embraced by the Western North Carolina Conference, who are preparing for the ministry.

**MARY ELIZABETH DUKE LYON SCHOLARSHIP FUND**

Established 1942 by Mary Washington Stagg, in memory of her mother, Mary Elizabeth Duke Lyon; the income to be used for scholarship aid to worthy students.

**THE McALISTER SCHOLARSHIP FUND**

Established December 1935 by Amelie McAlister Upshur in memory of her mother, Armatine Reynaud McAlister, and father, William Henry McAlister; the income to be used annually for a scholarship to one boy and one girl from each of the three states of North Carolina, South Carolina and Louisiana.

**MCCRACKEN MEMORIAL SCHOLARSHIP FUND**

Established 1945 by Thomas W. McCracken, '15; the income to be used for scholarship aid for worthy students.

**J. H. MCCRACKEN MEMORIAL SCHOLARSHIP FUND**

Established 1947 by J. H. McCracken, '22, and contributions from members of the First Methodist Church of Henderson, N. C., in memory of Reverend J. H. McCracken, '92, for many years a member of the North Carolina Conference; income to be used for scholarship aid.

**THE O. G. B. McMULLAN SCHOLARSHIP FUND**

Established 1913 by gift of O. G. B. McMullan of Elizabeth City, N. C.; the income to be used for scholarship aid to worthy students, preference to be given to residents of Perquimans and Pasquotank counties, N. C.

**R. A. MAYER SCHOLARSHIP FUND**

Established 1939 by gift of R. A. Mayer, '96, in memory of his father, Minor C. Mayer, and mother, Sarah R. Mayer, in connection with the Centennial celebration of Duke University, and supplemented subsequently by additional gifts; the income to be used for scholarship aid to worthy students, preference to be given to students from Mecklenburg County, N. C.

**W. H. MOORE SCHOLARSHIP FUND**

Established 1920 in memory of W. H. Moore, '71, by his wife, Mrs. W. H. Moore, and daughters, Mrs. W. E. Steele, Miss Maude Moore, Mrs. T. L. Parsons, Mrs. J. H. Ihrie, and Mrs. J. LeGrand Everett; the income to be used for scholarship aid to worthy students.

**THOMAS R. MULLEN, JR., SCHOLARSHIP FUND**

Established April 5, 1949, by gift of T. R. Mullen in memory of his son; the income to be used for scholarship aid to worthy young men and women.

**J. A. ODELL SCHOLARSHIP FUND**

Established 1897 by gift of James A. Odell; the income to be used for scholarship aid to worthy students.

**J. M. ODELL SCHOLARSHIP FUND**

Established 1897 by gift of J. M. Odell; the income to be used for scholarship aid to worthy students.

**W. R. ODELL SCHOLARSHIP FUND**

Established 1940 by gifts from Fred C. Odell, '02, Mrs. Ralph M. Odell, Arthur G. Odell, '06, and others, in memory of William R. Odell, '75, for more than 50 years a member of the Board of Trustees of Duke University; the income to be used for scholarship aid to worthy students.



**HENRY A. PAGE SCHOLARSHIP FUND**

Established January 1942 by gift of Henry A. Page, Jr., '07, and Gertrude Wetherill Page, in memory of his father, Henry A. Page, for many years a member of the Board of Trustees of Duke University; the income to be used for scholarship aid to worthy students, preferably those preparing for the study of medicine.

**EDWARD JAMES PARRISH SCHOLARSHIP FUND**

Established 1921 by Rosa Brown Parrish, in memory of her husband, Edward J. Parrish; the income to be used for scholarship aid to worthy students.

**JOHN T. RING SCHOLARSHIP FUND**

Established 1919 by gift of S. G. Ring and family of Kernersville, N. C., in memory of John T. Ring, '16, who was killed in France during World War I; the income to be used for scholarship aid to worthy students.

**T. V. ROCHELLE SCHOLARSHIP FUND**

Established 1945 by T. V. Rochelle, '14, High Point, N. C., and supplemented annually; the income to be used for scholarship aid to a worthy and needy student who is a graduate of the High Point, N. C., High School.

**SCHOLARSHIP FUND—ANONYMOUS**

Established 1939 by an anonymous donor, and supplemented from time to time; the fund to be allowed to accumulate until such time as the donor may designate the use of the income for scholarship purposes.

**J. RAYMOND SMITH SCHOLARSHIP FUND**

Established 1939 by J. Raymond Smith, '17, Mt. Airy, N. C., in connection with the Centennial celebration of Duke University; the income to be used for scholarship aid to worthy students.

**MARY ALYSE SMITH SCHOLARSHIP FUND**

Established December 1946 by Mary Alyse Smith, '30, of Burlington, N. C., and her father, Marvin B. Smith, for scholarship aid to worthy North Carolina boys or girls.

**THOMASVILLE SCHOLARSHIP FUND**

Established 1940 by gifts of T. Austin Finch, '09, and J. Walter Lambeth, '16, by contributions made through the Centennial Fund; the income to be used for scholarship aid to worthy students.

**MARY NEWBY TOMS SCHOLARSHIP FUND**

Established 1906 by gift of Clinton W. Toms and supplemented from time to time by additional gifts; in May 1947, in connection with supplemental gifts to the Fund, it was established as a permanent endowment in memory of his wife, Mary Newby Toms; the income to be used for scholarship aid to worthy students, preference to be given to students from Durham and Perquimans counties, N. C.

**GEORGE W. WATTS SCHOLARSHIP FUND**

Established 1897 by gift of George W. Watts; the income to be used for scholarship aid to worthy students.

**WEATHERBY SCHOLARSHIP FUND**

Established 1912 by C. E. Weatherby, Faison, N. C.; the income to be used for scholarship aid to worthy students.

**WOMAN'S PANHELLENIC SCHOLARSHIP FUND**

Established May 25, 1949, by gift of the Woman's College Panhellenic Association; income to be used for scholarship aid for a rising senior in the Woman's College of Duke University.

### *Scholastic Awards and Prizes*

Need is a primary factor in awards made from the funds listed above. There are, in addition, scholarships and prizes based on scholastic merit and promise of leadership. In this group are the

honorary scholarships financed through current funds of the University, the Angier Duke Regional Prizes, and the Duke University Regional Scholarships.

Fifteen honorary tuition scholarships are awarded annually to undergraduates. Five are awarded to members of the sophomore class, five to members of the junior class, and five to members of the senior class on the basis of the scholastic work of the preceding year.

Nine Angier Duke Regional Prizes of \$750.00 each are awarded annually to six men and three women. Prizes are awarded for one year and are renewable from year to year for a maximum duration of four years, on the condition that the holder maintain a scholastic average in the upper quartile of his class and further that he show evidence of developing the qualities of leadership which served as the basis for the original selection.

Any resident in the state of North Carolina is eligible to apply regardless of where he or she prepares for college. A candidate may be a graduate of a secondary school, public or private, located within or beyond the borders of the state. Candidates must be eligible for admission to the freshman class of Trinity College, the College of Engineering, or the Woman's College in the ensuing academic year. A candidate must have attained scholastic standing in the highest twenty-five per cent of his or her class as of the closing date of his or her most recently completed semester.

Three Duke University Regional Scholarships of \$750.00 each are awarded annually to two men and one woman. Prizes are awarded for one year and are renewable from year to year for a maximum duration of four years, on the condition that the holder maintain a scholastic average in the upper quartile of his class and further that he show evidence of developing the qualities of leadership which served as the basis for the original selection. The total value to the recipient who qualifies for the maximum period is \$3,000.00.

Any resident of a designated region will be eligible to apply regardless of where he or she prepares for college. A candidate may be a graduate of a secondary school, public or private, located within or beyond the borders of a designated area. Candidates must be eligible for admission to the freshman class of Trinity College, the College of Engineering, or the Woman's College in the ensuing academic year and must have attained scholastic standing in the highest 25 per cent of his or her class as of the closing date of his or her most recently completed semester.

Regions: For Men—Region I: The District of Columbia; Albemarle, Augusta, Clarke, Culpeper, Fairfax, Farquier, Frederick, Greene, Highland, King George, Loudoun, Madison, Orange, Page, Prince William, Rappahannock, Rockingham, Shenandoah, Spotsyl-

vania, Stafford, Warren, and Westmoreland counties in Virginia; Montgomery and Prince Georges counties in Maryland.

Region II: The State of Virginia excluding those counties comprising a part of Region I.

For Women: Region I: The State of Virginia; the District of Columbia; Montgomery and Prince Georges counties in Maryland.

One Duke University Regional Scholarship of \$350.00 for the recipient's first academic year is awarded annually by the Rochester, New York, Chapter of the Duke University Alumni Association. Any male resident of the County of Monroe, State of New York, will be eligible to apply regardless of where he prepares for college. A candidate may be a graduate of a secondary school, public or private, located within or beyond the borders of Monroe County. Candidates must be eligible for admissions to the freshman class of Trinity College or the College of Engineering in the ensuing academic year and must have attained scholastic standing in the highest twenty-five per cent of his class as of the closing date of his most recently completed semester.

Applications for one of the regional prizes or scholarships awarded either to men or women should be addressed to Mr. John M. Dozier, Office of the Secretary, Duke University, Durham, N. C. The deadline for the receipt of applications for an Angier Duke Regional Prize is December 15 of the year preceding the year of contemplated entrance. The deadline for the receipt of applications for a Duke University Regional Scholarship is February 15 of the year of contemplated entrance.

### *Loans*

A number of loan funds have been established for the benefit of the students of Duke University. The most important and largest is the Angier B. Duke Memorial Student Loan Fund, which is administered through an advisory committee of officers of the University. The amount available to be loaned depends upon the income from investments and on the amount repaid on loans previously made to students. The same committee of officers administers the other endowed loan funds of the University.

The committee in approving loans selects those students who, from the standpoint of character, scholastic attainment, personality, and degree of financial need, are deserving of consideration.

The following regulations govern the operation of the loan fund program:

1. No loan will be made to a student who violates any of the regulations of the University or whose academic record is not satisfactory to the faculty.

2. As a general policy, a student must have spent one semester in residence before he is eligible to apply for a loan. During this period the loan committee will have an opportunity to acquaint itself with the worth and need of the individual applicants.

3. Loans will be made only to students who are taking approved courses of study that lead to a degree, and all loans must be arranged for not later than one week after the beginning of a semester.

4. Every applicant for a loan must obtain the signatures of two substantial people on a note which must be presented to the Treasurer of the University before any money will be advanced. Only one of these co-signers may be a member of a borrower's family.

5. No loan will be made to defray any expenses other than those incurred for tuition, fees, or room rent.

6. Interest shall be charged for all loans, and the interest must be paid annually.

The University encourages borrowers to take advantage of its incentive plan. This plan enables them to realize a substantial saving through rebates which are given for repayment of long term loans prior to their maturity date.

7. Applications for loans should be made to the Loan Committee, Office of the Secretary, Duke University. A formal application for loan assistance may be made only on forms furnished in the Secretary's Office during the first week of each semester. The granting or withholding of a loan is a matter entirely within the discretion of the loan committee. A student is expected to use all other possible means of securing financial assistance before applying for aid from the Loan Fund.

#### ALBERT ANDERSON LOAN FUND

Established by the will of the late Albert Anderson; to be used for loans to worthy and deserving young men and women of the Methodist faith.

#### ALUMNI LOAN FUND

Established 1915 by gift from the Alumni Association.

#### ANGIER B. DUKE MEMORIAL LOAN FUND

A charitable trust established during the year 1925 by B. N. Duke in memory of his son, Angier Buchanan Duke, for the stated purpose of assisting needy and worthy students in obtaining a college education.

#### PAUL M. BARRINGER BEQUEST FUND

Established 1932 by bequest from Paul M. Barringer; the income to be used in educating worthy young people; preference to be given those from Rowan County, N. C.

#### BYNUM BELOTE LOAN FUND

Established 1924 by E. T. Belote of Asheville, N. C., in memory of his son, Alfred Bynum Belote, student 1923-24.

#### A. D. BETTS LOAN FUND

Established 1919 by G. W. Vicks, '11, and wife, in memory of Reverend A. D. Betts, a member of the North Carolina Conference; other contributions by W. A. Betts and Mrs. L. P. Wilkins; to be used for the aid of young men preparing for the ministry.

**FANNIE CARR BIVINS MEMORIAL LOAN FUND**

Established 1928 by the Alumnae Association in memory of Fannie Carr Bivins, '96; income to be loaned to young women students upon the recommendation of the Alumnae Council and approval by the dean of the Woman's College.

**CHRISTIAN EDUCATION LOAN FUND**

Established 1921 as a part of the Christian Education movement in the Methodist Church in North Carolina; for use as a general loan fund.

**CLASS OF 1902 LOAN FUND**

Established 1932 by the members of the class at their 30th Anniversary Reunion.

**JESSE A. CUNINGGIM LOAN FUND**

Established 1896 by J. A. Cuninggim, '90; to be loaned to young men preparing for the ministry.

**ALEXANDER EDENS MEMORIAL LOAN FUND**

Established 1920 by Lacy T. Edens, '24, Cora R. Edens, John A. Edens, L. D. Edens, '15, and L. F. Edens, in memory of Alexander Edens.

**GENERAL LOAN FUND**

Established 1900 by the North Carolina Conference, and supplemented from time to time by additional contributions by both the North Carolina Conference and the Western North Carolina Conference; to be used for no other purpose than to aid worthy students of the University.

**W. O. GOODE EDUCATIONAL LOAN FUND**

Established 1923 by W. O. Goode of the Western North Carolina Conference.

**MARY HESTER HAMBRICK LOAN FUND**

Established 1925 by W. R. Hambrick, Haldah Satterfield, John Jackson Hambrick, '16, and Robert T. Hambrick, '19, in memory of Mary Hester Hambrick, wife and mother; loans to be made to any needy students, preferably from Person County, N. C.

**B. D. HEATH LOAN FUND**

Established 1921 by B. D. Heath of Charlotte, N. C.; income to be used for students preparing for the ministry, preference to be given to one student annually from Union County, N. C.

**HOLLAND HOLTON MEMORIAL LOAN FUND**

Established March 1948 by friends and former students in memory of Holland Holton, '07, Professor of Education and Director of the Summer School of Duke University for many years; to be used in helping worthy young men and women in securing a college education.

**J. B. IVEY LOAN FUND**

Established 1922 by J. B. Ivey of Charlotte, N. C.; to be used for loans for worthy students.

**W. K. KELLOGG FOUNDATION LOAN FUND FOR NURSES**

Established 1942 by gift of the W. K. Kellogg Foundation; to be used for loans to students in the School of Nursing.

**MINISTERIAL EDUCATION LOAN FUND**

Established 1915 by the North Carolina Conference of the Methodist Church; to be used for loans to students preparing for the ministry.

**WILLIAM NEAL STUDENT AID FUND**

Established 1920 by John W. Neal in memory of his son, William Neal, student in 1919; to be used for loans to worthy and needy students.

**NORTH CAROLINA CONFERENCE BOARD OF CHRISTIAN EDUCATION LOAN FUND**

Established 1931 by gift of the Board of Christian Education of the North Carolina Conference; to be used for loans to students preparing for the ministry or other distinctive type of Christian service.



**W. N. REYNOLDS LOAN FUND**

Established by the late W. N. Reynolds, '86, of Winston-Salem, N. C.; to be used for loans to boys and girls of North Carolina seeking an education at Duke University; preference, however, to be given to graduates of the Nancy Cox Reynolds Memorial School, and the sons of employees of the R. J. Reynolds Tobacco Company, regardless of residence. In the discretion of the Executive Committee and under certain conditions, scholarships may be provided from the income from the fund.

**ROANOKE RAPIDS HIGH SCHOOL LOAN FUND**

Established 1925 by the graduating class of the Roanoke Rapids High School, Roanoke Rapids, N. C.; to be used for loans to students who are graduates of that school.

**ELLA WESCOTT TUTTLE LOAN FUND**

Established 1923 by D. H. Tuttle, '80, in memory of his wife, Ella Wescott Tuttle; to be used for loans to worthy young women seeking an education at Duke University.

**JOSHUA VICK MEMORIAL LOAN FUND**

Established 1920 by Mrs. J. W. Vick in memory of her husband, Joshua Vick; to be used for loans to needy students.

**WAKE COUNTY ALUMNAE LOAN FUND**

Established 1924 by the Raleigh Chapter of the Alumnae Association; to be used for loans to worthy women students.

**WINSTON-SALEM DISTRICT OF NORTH CAROLINA CONFERENCE LOAN FUND**

Established 1923 by the Winston-Salem District of the Western North Carolina Conference of the Methodist Church; to be used for loans to students preparing for the ministry from the Winston-Salem District.

**MARY POAGE WOOTEN LOAN FUND**

Established 1922 by John C. Wooten, '98, in memory of his wife, Mary Poage Wooten; to be used for loans to worthy students.

### *Student Employment*

Student employment offices are maintained to serve students who need part-time jobs. There are many opportunities both on the campus and in the city of Durham, and a considerable number of students each year help defray their college expenses by working.

Students may make application for part-time employment only after they have completed an application for admission and notification of acceptance has been given. The job application should be by letter prior to the reporting date for entrance, and a detailed job application form must be completed at the time of arrival at Duke University.

Those students in Trinity College and the College of Engineering in need of such employment may apply to Mr. J. M. Dozier, 205 Administration Building, West Campus. Students in the Woman's College should apply to the Assistant Dean of Undergraduate Women, 108 East Duke Building, East Campus.

### *Living Accommodations for Men*

Craven, Crowell, Few and Kilgo Quadrangles on the West Campus are reserved for undergraduate men. Kilgo Quadrangle is reserved for

freshmen. The Quadrangles contain 33 divisions known as Houses, each House being designated by a letter of the alphabet, including House A through House HH. The rooms are equipped as single rooms and as double rooms. In some areas communicating doors between rooms permit the use of rooms as suites for 3 or 4 persons. The rental charge for a single room is \$87.50 each semester. The rental charge for a double room is \$125.00 each semester, or \$62.50 for each occupant each semester.

Undergraduate men are required to live in the residence houses unless they are married, or are living with parents or close relatives. Any exceptions must be approved by the Dean of Men.

Rooms may be reserved by new applicants only if they have been officially accepted for admission by the University and if they have paid a room deposit of \$25.00. The room deposit is refundable, providing application for refund is made sixty days prior to the registration date of the semester for which the room was reserved or within thirty days after official withdrawal from the University Residence Hall.

A resident student, in order to retain his room for the succeeding semester, must make application at the office of the Housing Bureau for confirmation of the reservation. In order to secure a refund of his initial room deposit, he must cancel his room reservation sixty days prior to the registration date of the semester for which the room was reserved. All rooms which have not been reserved on or before an announced date will be considered vacant for the succeeding semester and will be reserved in the order in which applications are made.

Rooms are rented for no shorter period than one semester or, in the case of a medical student, one quarter, unless by special arrangement with the Housing Bureau. A period of occupancy other than a semester or quarter without special arrangement will be charged at a rate of one dollar each day of occupancy with a minimum charge of \$25.00.

The exchange of rooms may be arranged at the Housing Bureau within fifteen days after the official opening of the semester or quarter of the school term. Thereafter a charge of \$2.00 may be made. Persons exchanging rooms without the approval of the Housing Bureau will be subject to charges for both rooms.

The authorities of the University do not assume responsibility for the persons selected as roommates. Each student is urged to select the roommate when the room is reserved.

Beds and mattresses (39" x 74"), tables, chairs, dressers, mirrors, and window shades are furnished by the University. The student supplies linens, blankets and pillows. Rugs, if desired, are not to exceed 50 square feet in size.

Duke University desires to provide for its students a residential environment conducive to academic achievement, the development of

high ideals, and sound character. The institution asks and believes that each student will contribute to this end by arranging his personal belongings in an orderly manner, by caring for the buildings and furniture as he would do in his own home, and by observing a code based on gentlemanly behavior in an educational environment which demands respect for all residents. Regulations governing the occupancy of rooms will be supplied directly from the Housing Bureau when the room reservations are made. Occupants are expected to abide by these regulations.

### *Living Accommodations for Women*

Undergraduate women are required to live in the residence houses of the Woman's College unless they are living with parents or close relatives in the city. In the case of a mature student the dean may, under special circumstances, make an exception. There are eight residence houses: Alspaugh, Aycock, Bassett, Brown, Giles, Jarvis, Pegram, and Southgate. All rooms in Jarvis and Southgate are double; in the other houses a few single rooms are available and, with the exception of Aycock, a limited number of suites consisting of a double room and one or two single rooms. A counselor, who is a member of the dean's staff, lives in each dormitory. It is her function to advise students and to assist the student House Council in the administration of the house. Each occupant of a double room is charged \$75.00 per semester; the occupant of a single room, \$100.00 per semester.

Room reservations are made with the Woman's College Housing Bureau. An applicant who has been officially accepted may reserve a dormitory room by paying a room reservation fee of \$25.00. If this deposit is not paid within ten days after she is notified of her acceptance, her admission is cancelled. The initial room reservation fee is effective for the entire college career of the student whose attendance during regular terms is continuous. It will be refunded within 30 days after her graduation. Upon the withdrawal of an accepted applicant or of an enrolled student prior to graduation the room deposit fee is refundable provided the Housing Bureau is notified at least sixty days prior to the beginning of the semester for which the room was reserved. Dormitory rooms are reserved by upperclass students in accordance with the plan that is published during the school year. All rooms which have not been reserved on or before the announced date will be considered vacant for the succeeding semester and will be assigned to others.

Rooms are rented for no shorter period than one semester, unless by special arrangement with the Dean of Undergraduate Women. A period of occupancy other than a semester or a quarter without special

arrangement will be charged at the rate of \$1.00 each day with a minimum charge of \$25.00.

After a student has engaged a room, she is not permitted to move to another without the consent of the Woman's College Housing Bureau. A student leaving one room and occupying another without permission may be charged for both rooms for the entire semester. No student is allowed to rent or sublet the room she has engaged to another occupant.

A new student who wishes a double room but has made no arrangement for a roommate will be assigned a roommate by the Woman's College Housing Bureau. After a student has been a resident for one semester, she is responsible for obtaining and keeping a roommate. If a student occupying a double room does not obtain a roommate in the time required—approximately two weeks after the beginning of the semester—she may be required to pay the rental consideration for the entire room.

Rooms contain only the principal articles of furniture. The student supplies her own linens, blankets, bedspreads, curtains, and study lamp. She may, if she wishes, provide additional articles such as scatter-rugs and small tables or bookcases, but she may not have large rugs or overstuffed furniture.

### *Dining Service*

The dining facilities on the West Campus include three cafeterias with multiple-choice menus, and the Oak Room where full meals and *a la carte* items are served. The cost for the academic year ranges from \$375.00 to \$500.00, depending on the tastes of the individual. On the East Campus dining halls are located in the Union and in Southgate. Resident women may not board elsewhere than at these halls. The charge for board is \$200.00 per semester, payable at the time of registration.

In the Men's Graduate Center there is a cafeteria with multiple choice menus and a Coffee Lounge where sodas and sandwiches are served from 11:30 A.M. to 11:00 P.M. The prices in these dining rooms are the same as on the West Campus.

It is hoped that present rates may be maintained. Charges, however, are necessarily dependent on costs of labor, foods, and materials, and some adjustment may be necessary.

Due to the large number of those served in the dining halls, it is not possible to arrange special diets for individual students. Special diet for the sick is served in the infirmary.

# The Libraries



THE UNIVERSITY LIBRARIES, with more than 1,085,000 volumes and 1,500,000 manuscripts, provide exceptional resources and facilities for study and research by undergraduate and graduate students, and by visiting scholars. Between 40,000 and 50,000 volumes are added annually, and 69 foreign and domestic newspapers and 3,950 periodicals are received currently. A large collection of microfilms of rare books, newspapers, and periodicals is available.

A Chemistry library (16,000 volumes), Physics-Mathematics library (15,500), and Biology-Forestry library (48,000) are housed for convenience of use in the buildings of these departments. The libraries of the Schools of Divinity (58,000), Law (98,000), Medicine (53,000) and of the College of Engineering (18,500) are also shelved in the buildings of these schools, all on the West Campus.

The General Library, centrally located on the West Campus, has 685,000 volumes in all other fields. It is the principal working and research collection for students in the humanities and social sciences. The collection has been developed with care to support the work of the undergraduate curriculum and the more specialized needs of graduate and post-doctoral research. Basic collections of source materials are supported by the important publications of criticism and discussion. There are large collections of general periodicals, of the publications of European Academies, and of public documents of state, federal, and foreign governments, and international organizations. The newspaper collection (about 13,000 volumes and 3,200 rolls of microfilm) is particularly strong in papers from the states of the Atlantic seaboard, both North and South, with extensive holdings of Ante-bellum and Civil War papers of North Carolina, South Carolina, and Virginia.

The manuscript collections, relating chiefly to the South Atlantic region with particular strength in the Confederate period, is most extensive in the field of history, but it contains important source material on all phases of social and economic life as well as politics. There are groups of manuscripts in American and British literature, with a notable Walt Whitman collection, and a number of important mediaeval manuscripts, chiefly lectionaries and copies of the New Testament. Among many special collections of note are the Guido Mazzoni library of Italian and comparative literature, the Lanson Collection of French literature, Goethe and Dante collections, collections on Brazil, Peru, Ecuador, and the Philippines, the Holl Church history



library, eighteenth-century English poetry and prose, a Socialist collection, the Arents tobacco collection, the Thomas collection of books on Chinese history and culture, the George Washington Flowers Collection of manuscripts, books, newspapers, and pamphlets dealing with all phases of Southern history, and the Trent collection of Walt Whitman books and manuscripts.

The Général Library building, which was modernized and enlarged in 1949, contains many special features which contribute to the preservation of materials and facilitate their use by students and research workers. The book stacks, manuscripts, and rare book storage and reading rooms are air-conditioned. Two hundred and fifty carrels, some completely enclosed, are available in the stacks as places of study for graduate students. Graduate and advanced students are permitted access to the stacks upon application. On the ground floor are a newspaper reading room with a battery of microfilm reading machines and a microphotography laboratory with facilities for reproducing printed and other material. On the same floor are the manuscripts reading room and storage area. The first floor has periodical, graduate, and undergraduate reading rooms, the latter opening into an attractively furnished small library for recreational reading. In the north wing is the rare book reading room, with adjoining special collections rooms and storage stacks. The second floor houses the general reference and reading room, the circulation department and Main Loan Desk, and the Public Card Catalog, a union catalog of books in all the University libraries. There is also a catalog of the library of the University of North Carolina at Chapel Hill, whose books are available through inter-library loan.

On the East Campus, the Woman's College Library, in its attractive Georgian building, contains more than 93,000 volumes in an open stack collection, chiefly those most constantly needed in the undergraduate work of women students. A reference and general reading room, the Thomas Memorial Room, and the Booklovers' Room, with open shelves of books for general reading, provide comfortable and attractive space for reading and study.

A "Student's Guide to the General Library" is available on request addressed to the Librarian of the University.

# Reserve Officers Training Corps



THROUGH the Naval and Air Force Reserve Officers Training program the University is cooperating with the Department of National Defense in the effort to provide a steady supply of well-educated officers for the active and reserve forces of the Nation.

## *The Naval Reserve*

There are two basic programs through which students can qualify for Naval commissions upon graduation: one, the Regular Naval Reserve Officers Training Corps program, provides a maximum of four years in the University largely at government expense, followed by a commission in the regular Navy or Marine Corps; the other, the Contract program, leads to a commission as Ensign in the Naval Reserve or as Second Lieutenant, U. S. Marine Corps Reserve.

The Regular Student—Scholarships are awarded on the basis of an annual nation-wide test and selection procedure. Students selected are appointed Midshipmen, USNR, and receive for a maximum of four years tuition, fees, and textbooks at government expense plus retainer pay at the rate of \$600 per year. Regular midshipmen may take any course leading to a baccalaureate or higher degree with certain exceptions, e.g., pre-medicine and medicine, pre-theological and theological, music and art. They must include in their courses of study 24 semester hours of Naval Science plus trigonometry (if not successfully completed in secondary school) and college physics. The Regulars go on two summer training cruises aboard ship and receive aviation and amphibious indoctrination at naval shore stations the third summer.

Upon graduation they must accept a commission as Ensign, USN, or Second Lieutenant, USMC, if offered, after which they serve on active duty with the fleet for three years, if required by the Secretary of the Navy. At the end of two years' service as commissioned officers, they may request retention in the regular Navy or Marine Corps, or at their option be commissioned in the Reserve. Officers commissioned in the Reserve under such an option may be released to inactive duty except in times of national emergency.

The Contract Student—The second type of officer candidate in the NROTC, the contract student, is selected from those regularly enrolled students in Duke University who desire to qualify for a commission in the Naval or Marine Corps Reserve while pursuing their normal course of study. There is no restriction on the course of study

which a contract student may pursue; nor is he required to take college physics while in the program. They must include in their academic program trigonometry (if not successfully completed in secondary school) and 24 semester hours of naval science. They have the status of civilians who have entered into a mutual contract with the Navy and are not eligible for the benefits and retainer pay received by regular midshipmen. They are paid a subsistence allowance during their last two years in the NROTC, however, amounting currently to 90 cents per day. They go aboard ship for one summer training cruise, normally between their junior and senior years. Upon graduation, they are commissioned in the Naval or Marine Corps Reserve and, if needed, report for two years' sea service. They may upon completion of the years of minimum active service request additional active duty or transfer to the inactive reserve for a period of six years.

Both Regular and Contract midshipmen are deferred from Selective Service by virtue of their commitment to serve on active duty after graduation. The Navy furnishes necessary uniforms and equipment. Uniforms are worn only on drill days or other special occasions when prescribed by the Professor of Naval Science. Regular and Contract students receive the same instruction and wear the same uniforms. No distinction is made, except in the handling of their records, between the two types of midshipmen.

### *The Air Force Reserve*

The unit functions as a regular department of instruction known as the Department of Air Science. It selects and trains students who possess the requisite character, intelligence, desire, and sense of duty to become Air Force Officers.

For enrollment in the Basic Course (freshman and sophomore years) the student must: be a male citizen of the United States; be physically qualified under standards prescribed by the Air Force (due allowance will be made for defects which are correctible prior to the student's eligibility for appointment as a commissioned officer); be accepted by the institution as a regularly enrolled student; be not less than 14 years of age and not have reached 23 years of age at the time of enrollment; and successfully complete such general survey and screening tests as may be prescribed.

For enrollment in the Advanced Course (junior and senior years) the student must: have successfully completed the Basic Course or have had at least one year of honorable service in the Armed Forces of the United States; execute a written agreement with the government to complete the Advanced Course *and accept a commission in the United States Air Force Reserve*, contingent upon remaining in school,

and to attend the Advanced Summer Camp at the time specified; not have reached 27 years of age at the time of initial enrollment in the Advanced Course; successfully complete such general survey and screening tests as may be prescribed; and be selected by the Professor of Air Science and Tactics and the appropriate authority of the institution.

All uniforms, texts, and training equipment required for the Air Science Course are furnished at government expense, and students are paid a total of approximately \$600.00 for the two years of the Advanced Course.

Upon graduation and completion of the Advanced Course, students will be offered commissions as Second Lieutenants in the Air Force Reserve. Selected outstanding graduates who desire lifetime careers in the Regular Air Force may apply for regular commissions after serving on active duty for one year. Flying training is available after graduation for those who desire it and are physically qualified.

Students in the Basic Course may be deferred from Selective Service upon satisfactory completion of one semester of Basic Air Science. Advanced students are eligible for deferment as soon as they are enrolled formally in the Advanced Course. When quotas for deferment are less than the number of eligible enrollees, selection for deferment is made by a board composed of representatives from the AFROTC and the University.

## The Bureau of Testing and Guidance



The University maintains a Bureau of Testing and Guidance which provides a centralized program of educational, vocational, and personal counseling for students. In addition, the Bureau administers special group testing programs for University schools and departments and serves as the local testing center for a wide variety of national testing programs. The Bureau also carries on programs of research in the field of measurement and counseling. Although the counseling, testing, and research services of the Bureau are designed primarily to meet the needs of the students, the faculty, and the staff of Duke University, these services are made available to individuals and organizations outside the University as its facilities permit. Requests for further information should be addressed to the Director, Bureau of Testing and Guidance, Duke Station, Durham, N. C.

## Appointments Office



THE APPOINTMENTS OFFICE is a service agency designed to aid graduates in solving the problem of post-college employment. Its primary function is to serve as an intermediary between students and prospective employers. It acquaints students with possibilities in business and professional fields; it assembles comprehensive records on each registrant and makes these records available to appropriate representatives; and it arranges interviews with prospective employers. The data assembled for individual records include academic achievement, training, experience, extracurricular activities, and honors. On occasion additional information of a specialized nature is secured. Confidential letters of recommendation are incorporated in the file of each registrant. The Office initiates contacts for students or cooperates with students who make contacts through personal efforts or through various departments of the University. It aids the registrant in directing his search to a field appropriate to his aptitude, training, and interest.

There are two major divisions of the Office: the Commercial Division, which handles all matters involving contacts with business and professional areas not related to formal education; and the Educational Division, which concerns itself with teaching and school administration positions at all levels. Students and alumni may register with either or both of these divisions.

The Office receives more calls for qualified personnel than it can supply from its registrants. It is to the mutual advantage of the students and the Office that a complete record of registrants be assembled by the fall of the senior year.

## The Summer Session



THE SUMMER SESSION at Duke University makes available to Duke undergraduate students and to undergraduates from other universities and colleges a notable program of instruction in many fields of knowledge both academic and professional.

Undergraduates in Duke University who desire to accelerate their programs may complete the work for a degree in three years by attending two and one-half summer sessions.



Undergraduates from other colleges and universities may enjoy the special advantages of summer instruction at Duke and transfer their earned credits to their own institutions.

The Summer Session of 1953, will include two six-week terms: Term I, June 10 to July 18; Term II, July 21 to August 28. By attending both terms it is possible for a student to earn as many as twelve semester hours of credit.

Instruction of interest to undergraduates will be offered in the summer of 1953 in the following departments and colleges: Aesthetics, Art, and Music; Botany; Chemistry; Economics; Education; Nursing Education; English; Forestry; French; Geology; German; Greek; Health and Physical Education; History; Latin and Roman Studies; Mathematics; Philosophy; Physics; Political Science; Psychology; Religion; Sociology; Spanish; and Zoology.

Distinctive features of Summer Session instruction are provided by the program in marine biology offered at the Duke Marine Laboratory, Beaufort, N. C., and by the School of Spanish Studies held on West Campus. The School of Spanish Studies (1953 will be its twelfth session) offers unusual opportunities to students both undergraduate and graduate who seek proficiency in the active use of the language. Students and faculty live and board in the Residence and share in a Hispanic social program. Among the faculty are native professors and native student assistants. Everyone speaks Spanish. Courses are offered concurrently on the undergraduate and the senior-graduate level so that the student while acquiring oral facility in everyday living may also satisfy course requirements toward a degree.

While the basic purpose of the Summer Session is to serve the academic and the professional requirements of those who are interested in their own educational advancement, the University recognizes the need of, and provides for, a varied recreation program both athletic and social.

Undergraduates of Duke University both men and women who plan to attend the Summer Session should enroll with the Dean of their own college in Duke University. Undergraduates in other universities or colleges who seek transfer credits should apply directly to the Director of the Summer Session, Duke University, Durham, N. C.

# Registration and Academic Regulations



**O**RIENTATION PROGRAM: All freshmen and transfer students are required to participate in the activities of Orientation Week. The program includes general ability, achievement, and placement tests, orientation lectures, physical examinations, social events, special religious services, registration, and enrollment.

The University considers the planning of a course of study to be of primary importance. A specially trained corps of advisers, therefore, is made available for consultation. The tests enable the counsellor to plan a program adapted to the ability, achievements, and goals of the individual student. New students who miss the whole or a part of the Orientation Program place themselves at a serious disadvantage at the very outset of their college career.

**MATRICULATION AND REGISTRATION:** Students in residence are required to submit to the appropriate dean, not later than the date of the spring registration, cards showing their selection of courses for the following year. An advance deposit of \$25.00 is required before the card may be submitted. These cards, approved by the dean, are filed for permanent record in the dean's office. Students who do not select their courses for the following year at the time appointed must pay a fee of \$5.00 to the Treasurer of the University before their course cards may be approved for the fall. Students whose course cards have been approved in the spring may matriculate by mail during the summer. The same regulations, with the exception of the advance deposit, apply to registration for the spring semester.

Students who register in either semester at a date later than that prescribed in the calendar of this Bulletin must pay to the Treasurer a fee of \$5.00. They are counted as absent in the work they have missed in the courses to which they are admitted, and these absences carry the same penalty as do other absences from the course. Changes in courses for reasons not arising within the University require a payment of \$1.00 for each change made. No course may be elected later than two weeks after the opening of the semester, and no student may be admitted to any class without an enrollment card.

## *General Academic Regulations*

**QUANTITY CREDIT AND COURSE LOAD:** The term of credit used is the semester hour which signifies one recitation a week throughout the semester. Two or three hours of laboratory work are equivalent to one hour of class work. Two semesters of seventeen weeks each constitute the academic year. For the degree of Bachelor of Arts or Bachelor of Science, credit for 124 semester hours is required; for a degree in Engineering, 148 semester hours.

The normal load of an undergraduate student in the Colleges of Arts and Sciences is five academic courses totaling 14 to 17 semester hours. The maximum number permitted is 19 semester hours, exclusive of physical education. In the College of Engineering the normal load is six academic subjects of 18 semester hours, exclusive of physical education. No student is permitted to take less than 14 semester hours of work without special permission from the dean nor to take more than the normal load of work unless his average grade in the preceding semester is higher than C.

**QUALITY CREDIT:** The requirements for the degree are computed not only in semester hours but also in quality points. Quality points are earned by a student on the basis of his grades: for an A he receives three quality points for each semester hour; for a B, two quality points for each semester hour; for a C, one quality point for each semester hour; for a D, no quality points; for an F, a loss of one quality point for each semester hour. (In the College of Engineering no loss is incurred by a grade of F.) Credit for at least 124 quality points is required for the degree of Bachelor of Arts or Bachelor of Science, and at least 148 quality points for a degree in Engineering.

**CLASS STANDING:** In the Colleges of Arts and Sciences a student to rank as a sophomore must have to his credit at least 26 semester hours and 26 quality points; as a junior, at least 56 semester hours and 56 quality points; and as a senior, at least 92 semester hours and 92 quality points. In the College of Engineering he must have, respectively, at least 30 semester hours and 30 quality points; 68 semester hours and 68 quality points; and 106 semester hours and 106 quality points.

In the Colleges of Arts and Sciences no senior may take for graduation credit any course open primarily to freshmen; and no junior may take for graduation credit more than one course open primarily to freshmen. A list of these courses is published in the Bulletin under "Courses of Instruction."

A student of the senior class, irrespective of his average grade in preceding years, must, in order to be eligible for graduation, complete the work of his senior year with a minimum average grade of C.

A tentative list of all candidates for the Bachelor's degree is prepared under the supervision of the dean as early in the college year as possible. A copy is furnished to each department of instruction for information and reference, and a copy is posted on the official bulletin board of the University for the information of the students concerned.

**RESIDENCE REQUIREMENTS:** A minimum of 30 semester hours of senior-level work in the Colleges of Arts and Sciences and 36 in the College of Engineering must be earned in residence. Students who meet this requirement but who still lack 6 to 8 semester hours in final fulfillment of requirements may take this work in another institution of approved standing, provided the course is approved by the head of the department concerned and by the dean.

A student who completes in a summer session the work required by the University for the Bachelor's degree will be granted the degree at the end of the summer.

#### GRADING, ATTENDANCE, REPORTS, DISMISSAL, AND EXAMINATIONS:

**GRADING:** Grades are reported so as to indicate one of four things:

(1) *Passed.* A grade of A, B, C, or D indicates that a student has passed a course. The work of this group of students is graded according to the following system: A, exceptional; B, superior; C, medium; D, inferior.

(2) *Failed.* A grade of F indicates that the student has failed the course, and in order to receive credit for the course he must repeat the work in class.

(3) *Incomplete.* (a) A grade of I may be reported by the instructor if for any reason he is unable to report the final grade at the regular time. (b) Incomplete courses must be completed before the close of the succeeding semester; otherwise the I is recorded as F, and the course must be repeated in class if the student is to receive credit for it.

(4) *Absent from final examination.* (a) The grade X indicates that the student was absent from the regularly scheduled examination. (b) A student absent from examination, if the absence has been excused by the dean of the college, may receive an examination upon the payment of a fee of \$3.00 to the Treasurer of the University. The instructor concerned arranges for the examination in cases where absences are excused. (c) A student with an X grade who has not obtained a passing grade before the end of the semester following that in which the X was incurred is regarded as having failed in the course concerned and must repeat the work in class in order to receive credit. (d) If a student's absence from an examination is not excused by the dean of the college, his grade for the course concerned is recorded as F.

If a student drops a course without permission from the dean, the grade for that course is recorded as F. If he drops with permission a course in which he is failing at that time, the grade for that course is recorded as F unless, in the judgment of the dean, circumstances do not justify this penalty.

**ATTENDANCE:** Regular and punctual attendance in class work is expected of all students. Weekly reports of all absences from class are to be made by each instructor and filed in the dean's office. No instructor has the authority to excuse a student from class attendance, and it is his duty to report all absences and tardinesses. The first three tardies in a given course are counted as one absence, and each succeeding tardy is counted as one additional absence.

To provide for absences due to brief illness and other absences for necessary reasons, one absence per semester hour credit may be incurred in each course during each semester.

Absences due to continuous illness of at least four days' duration and authorized absences for representation of the University may be excused, provided foresight has been used in previous absences.

Sophomores, juniors, and seniors who, in a normal schedule make averages of B or above in the preceding semester will be allowed two absences per semester hour but will, in all other respects, be subject to the same regulations as other students.

All absences immediately before and after announced holidays are counted as double absences.

For each unexcused excessive or consecutive absence the student incurs the loss of quality points in proportion to the number of such absences taken: one quality point for the first absence, two for the second, and three for the third. When the third unexcused, excessive, or consecutive absence is incurred, the student is debarred from the course with the loss of six quality points.

When a student's course load is reduced, because of unexcused absences, to less than 12 semester hours, he is required to withdraw from the University.

**REPORTS:** Reports on class attendance and proficiency in academic work are sent to parents or guardians after the examinations at the end of each semester. In addition, reports on freshmen are mailed at each mid-semester period.

**DISMISSAL:** A student of the freshman class to remain in the University must pass at least 6 semester hours of work in his first semester and 18 semester hours in his first year. All other students must pass at least 9 semester hours each semester. The University may require a student whose record is considered unsatisfactory to withdraw, although he has met the minimum requirements set forth in this paragraph.



**EXAMINATIONS:** Final examinations are held in all subjects in January and May.

**DEFICIENCIES IN COMPOSITION:** The following regulations have been adopted by the Faculty:

1. Any student who must take English 1 and whose score in the English placement test indicates that he is not yet ready for English 1 must earn a passing grade in English L before being permitted to enter English 1.

2. In the fall of his or her junior year every student of Trinity College and of the Woman's College must take an examination in English usage. The regulation does not apply to students of the College of Engineering, which has special course requirements in English composition in addition to English 1-2. Students with irregular schedules resulting from acceleration or transfer to Duke after the fall of their junior year should take the examination in the fall of the year most nearly approximating the fifth semester. In any event, all students must take this examination; it is a requirement for graduation. If it is not taken in the junior year, it must be taken the succeeding fall, or at such other time as may be designated by the appropriate authorities of the University. Students who are proved deficient by this examination will be required to complete satisfactorily a special non-credit laboratory course in remedial English.

3. Whenever the work of a student in any course is unsatisfactory because of errors in English, the instructor may report the student to the dean, who will require him to enroll in remedial English until, in the opinion of the director of the Remedial Laboratory, the deficiency is removed.

4. All instructors are requested to advise their students each semester concerning this regulation.



THE WOMAN'S COLLEGE LIBRARY

# Requirements for Degrees



DUKE UNIVERSITY offers, in Trinity College, the Woman's College, and the College of Engineering, courses of study which lead to the degrees of: Bachelor of Arts, Bachelor of Science, Bachelor of Science in Civil, Electrical, or Mechanical Engineering, and Bachelor of Science in Nursing Education.

## *Bachelor of Arts*

The requirements for the degree of Bachelor of Arts are based on the principle that the student will derive the maximum benefit from his college work if his program includes a broad distribution of studies among representative fields of culture, concentration within a special field, and some work of his own choice.

For graduation with the degree of Bachelor of Arts, the following course work must be completed in accordance with the academic regulations as stated on pages 79-83 of this Bulletin.

UNIFORM COURSE REQUIREMENTS		S.H.
English .....		6
Foreign Language .....		6-18
Natural Science .....		11
Religion .....		6
Social Science and History .....		12
Literature, Music, Art, and Philosophy .....		6
Physical Education .....		4
MAJOR AND RELATED WORK .....		42
ELECTIVES TO MAKE A TOTAL OF .....		124

These requirements are described in detail below. Descriptions of courses can be found under "Courses of Instruction, Trinity College and the Woman's College" on pages 98-172 of this Bulletin.

**ENGLISH, 6 s.h.**—This requirement is met by the completion of English 1-2. Students who demonstrate proficiency in English usage may be allowed to substitute 55 or 56 for English 1.

**FOREIGN LANGUAGE, 6 to 18 s.h.**—This requirement is met by the completion of the third college year of a foreign language. The languages which meet this requirement are French, German, Greek, Latin, and Spanish. The number of courses required depends on previous training and ability as shown on placement tests. Students presenting for entrance four units of Latin may satisfy the language requirement by the completion of the third college year of Latin or by two years of Greek. In exceptional cases, on the recommendation of the language department concerned and with the approval of the Dean, a student who has completed the second college year of one language may satisfy the requirement by the completion of the first year of another language.

**NATURAL SCIENCE, 11 s.h.**—To satisfy this requirement a student must complete a laboratory course (8 s.h.) in one of the natural sciences (botany, chemistry, geology, physics, zoology), and one course of at least 3 semester hours selected from mathematics (except Mathematics 1), logic and scientific methodology (Philosophy 48 and 104), or from the sciences listed above.

**RELIGION, 6 s.h.**—To meet this requirement 6 semester hours must be chosen from Religion 1, 2, 51, 52, 91, 93, 94, 101, 103, 104, 114, 130, 132, 181, 182.

**SOCIAL SCIENCE AND HISTORY, 12 s.h.**—(a) Students who present for entrance two acceptable units of history can satisfy this requirement by 12 semester hours chosen from History 1-2, or 51-52, Economics 51-52, Education 84, 105, Political Science 61-62, or 63-64, Psychology 91, or Sociology 91-92. Six of the 12 semester hours must be taken in economics, history, political science, or sociology. (b) Students who do not present for entrance two acceptable units of history must take History 1-2, or 51-52, and 6 semester hours selected from the other social sciences named in (a).

**LITERATURE, MUSIC, ART, AND PHILOSOPHY, 6 s.h.**—This requirement can be satisfied by a total of 6 semester hours in courses in English or American literature, foreign literature courses numbered above 100, literature courses in translation, courses in aesthetics, art, music, and courses in Philosophy except 48, 103, 104, 109, 199.

**PHYSICAL EDUCATION, 4 s.h.**—In Trinity College physical education is required during each of the first two years and is normally completed by the end of the sophomore year; in the Woman's College it is required during the first three years and is normally completed by the end of the junior year.

**MAJOR AND RELATED WORK, 42 s.h.**—Prior to registration in the spring of his sophomore year, each student is required to choose his major field and confer with his departmental adviser on the requirements for major and related work.

The major work consists of 18 to 24 semester hours in one department above the introductory courses. Introductory courses may consist of two one-semester courses in all departments except the Departments of German, Latin, and Romance Languages where the introductory courses may consist of four one-semester courses. The choice of courses must be approved by the major department. The related work must be taken in at least two other departments and is selected subject to the approval of the major department and the dean; it may not include more than one course of 6 or 8 semester hours open primarily to freshmen. Courses satisfying the uniform course requirements may also be counted toward the requirements in major and related work. Information on specific departmental requirements for major and related work can be found in the section "Courses of Instruction" (pages 98-172), and several programs of study designed as preparation for professions are given in the next section.

The total amount of work that a student may take in any one department toward the Bachelor of Arts degree is limited to a maximum of 36 semester hours. In the Department of Aesthetics, Art, and Music, and the Department of Philosophy, the Department of English, the Department of Economics and Business Administration, and the Department of Romance Languages, a total of 54 semester hours is permitted, provided a total of not more than 36 semester hours is taken in any one division of the department.

**ELECTIVES.**—In addition to the uniform courses required and major and related work, other courses must be completed to make a total of at least 124 semester hours, including 4 semester hours of physical education.

Students whose courses of study permit may elect a maximum of 18 semester hours in engineering, forestry, or medical science. The courses elected in these subjects must be approved by the major department and the dean of the college.

## CHOICE OF A MAJOR FIELD

The requirement of 42 semester hours in a major field is based primarily on the belief that some advanced study in one subject, together



with related work in allied subjects, is a valuable part of a general education. The selection of a major field usually depends on a student's cultural or vocational interests.

### GENERAL PROGRAM

The General Program is designed for the student whose primary interest is in one of the liberal arts subjects. The subjects in which major work is offered are: art, botany, chemistry, economics, education, English, French, geology, German, Greek, history, Latin, mathematics, music, philosophy, physics, political science, psychology, religion, sociology, Spanish, zoology.

### SPECIALIZED PROGRAMS

The student who has chosen a vocation may wish to include specialized training in his program. The following programs of study in preparation for various professions or professional schools are outlined for the guidance of the student.

**BUSINESS:** The student who plans to engage in some form of business may choose his major work in economics or he may take the following specified courses to satisfy the requirements for the major and related work.

Freshman Year: Economics 11 (recommended but not required), Mathematics 5 and 16.

Sophomore Year: Economics 51-52, Economics 57-58, Political Science 61-62.

Junior and Senior Years: Economics 138, Economics 143, Economics 144, Economics 153, Economics 171-172 or Economics 105 and 158, Economics 181-182, Economics 189. Three hours of the economics courses shown in Economics Major Section B.

In addition to the courses specified above, 9 semester hours from other courses in the Department of Economics and Business Administration must be elected. In the case of ROTC students these 9 semester hours may be taken in Naval Science or Air Science.

A student planning to take the examination to qualify as a Certified Public Accountant may, with the permission of the Department of Economics, substitute courses in accounting (including Economics 184) for courses 11, 138, 144, 189, and for 3 semester hours of the electives in Section B (p. 116).

**RELIGIOUS WORK:** A student who plans to enter the ministry or other religious work should have a broad liberal arts training. He may major in religion or any other subject. It is suggested that the student include in his program as many as possible of the following courses.

Freshman Year: Religion 1-2, History 1-2.

Sophomore Year: Religion (6 s.h.), Economics 51-52 or Political Science 61-62, English Literature (6 s.h.).



Junior Year: Religion (6 s.h.), Psychology 91, English 151-152.

Senior Year: Religion (6 s.h.), Sociology (6 s.h.), Philosophy (6 s.h.).

**SOCIAL WORK:** The student who plans to pursue professional studies in preparation for social work (such as family welfare, child welfare, public welfare, probation and parole, and similar forms of neighborhood and community work) should take his major work in sociology, with related work in other social sciences. The following courses should be included:

History 1-2, or 51-52.

Economics 51-52.

Political Science 61-62.

Psychology 91.

Philosophy (6 s.h.).

Zoology is recommended for the required course in Natural Science. Electives should be chosen mainly from history, economics, political science, education, sociology, philosophy, psychology, or religion.

**TEACHING:** The program for students who intend to teach is designed to prepare for positions both in the elementary school and in the high school. All prospective teachers, regardless of the type of school in which they expect to teach, (a) must take a sequence of four basic courses in the Department of Education, namely, Education 84, 88, 103, and 118; (b) should read carefully the certification requirements of the state in which they plan to teach and should arrange their programs with their departmental adviser accordingly; and (c) should begin early the required sequence of courses in education, taking Education 84, preferably during the sophomore year and Education 88 during the junior year.

**HIGH-SCHOOL TEACHING.** Students may meet certification requirements by qualifying in one teaching subject, but they are strongly advised to choose their electives to meet requirements in two teaching subjects. In any case their programs must include courses in education and in other subjects sufficient to satisfy the certification requirements of the state in which they will teach. Courses in materials and methods should be taken during the junior year; and courses in observation and practice teaching may be taken *only* in the senior year.

**ELEMENTARY SCHOOL TEACHING.** Students preparing to teach in the elementary school must complete the following specific requirements: Education 101-102 and 142, History 91-92, and Political Science 63 or 61-62, Economics 115, Economics 109, or 118, or 120, Music 101, or 151, or 152, Physical Education 102, and Health Education 112. Education 101-102 (which includes observation and practice teaching) should be reserved for the senior year.

**PREPARATION FOR GRADUATE SCHOOL:** The student who plans to enter a graduate school of arts and sciences for advanced study should consult an adviser in the field of the proposed advanced study

concerning suitable preparation. Most graduate schools have definite requirements in foreign languages for all students. Candidates for the degree of Doctor of Philosophy are required to pass reading examinations, usually in German and French. In some cases other languages may be substituted. As soon as practicable, the student should ascertain the requirements of the particular graduate school he desires to enter.

**PREPARATION FOR LAW SCHOOL:** Students who plan to study law may select their major work in any field. The following courses are recommended:

Economics 51-52, 57-58.  
English 55-56.  
History 1-2 or 51-52, 105-106.  
Philosophy 48 and 91.  
Political Science 61-62.  
Sociology 91-92.

Special advisers are available for pre-legal students. The names of these advisers may be secured at the dean's office.

**PREPARATION FOR MEDICAL OR DENTAL SCHOOL:** Students planning to enter a medical or dental school should select the following foundation courses for the study of medicine:

Chemistry 1-2, 61, 151-152.  
English 55-56.  
Mathematics 5, 6.  
Physics 51-52.  
Zoology 1-2, 53.

Pre-medical and pre-dental students may take their major work in a single department, or they may satisfy the requirement for the major and related work by the completion of at least 13 semester hours chosen from the following courses in addition to the 54 semester hours of foundation courses above:

Botany 101 or Zoology 110.  
Chemistry 70.  
Mathematics 51, 52.  
Physics 125, 126.  
Psychology, 2 courses from 119, 132, 141, 144, 145, 148, 212, 215.  
Zoology 92, and 151 or 271.

Science courses numbered above 100 may be substituted for these with the approval of an adviser for the pre-medical group and the Dean. Students who plan to include psychology in their 13 hours should complete Psychology 91 in their sophomore or junior years. When the major work is in science, electives in social sciences or humanities are recommended. It is advisable to choose German or French as the foreign language. Each pre-medical student should ascertain the requirements and recommended courses of the medical school that he expects to attend.

Special advisers are available for pre-medical and pre-dental students. The names of these advisers may be secured at the dean's office.

## *Bachelor of Science*

For graduation with the degree of Bachelor of Science, the following course work must be completed in accordance with the academic regulations stated on pages 79-83.

UNIFORM COURSE REQUIREMENTS	S.H.
English .....	6
French and German (second college year) .....	12-24
Mathematics .....	6
Natural Science .....	8
Economics, History, or Political Science .....	6
Religion .....	6
Restricted Elective .....	6
Physical Education .....	4
MAJOR AND RELATED WORK .....	48
ELECTIVES TO MAKE A TOTAL OF .....	124

These requirements are described below. Description of courses can be found under "Courses of Instruction, Trinity College and the Woman's College" on pages 98-172 of this Bulletin.

**ENGLISH, 6 s.h.**—This requirement is met by the completion of English 1 and 2. Students who demonstrate proficiency in English usage may be allowed to substitute English 55 or 56 for English 1.

**FRENCH AND GERMAN.**—Bachelor of Science candidates must normally complete at least the second college year, or equivalent as determined by examination, of both French and German. In special cases, with the permission of the major department and the Dean, this requirement may be met by completing the third year of French or German.

**MATHEMATICS, 6 s.h.**—This requirement may be met by completion of Mathematics 5 and 6.

**NATURAL SCIENCE, 8 s.h.**—This requirement can be satisfied by courses in one of the natural sciences, namely, botany, chemistry, geology, physics, and zoology. The courses must include laboratory work, and may not be counted as part of the major or related work.

**SOCIAL SCIENCE AND HISTORY, 6 s.h.**—A student who does not present for entrance two acceptable units of history (exclusive of other social work) must take a course in history; otherwise, he has his choice of economics, history, or political science. The courses that will satisfy this requirement are listed under "Courses of Instruction."

**RELIGION, 6 s.h.**—To meet this requirement 6 semester hours must be chosen from Religion 1, 2, 51, 52, 91, 93, 94, 101, 103, 104, 114, 130, 132, 181, 182.

**RESTRICTED ELECTIVE, 6 s.h.**—To meet this requirement 6 semester hours in addition to other uniform course requirements must be selected from aesthetics, art, economics, education, English, foreign language, history, music, philosophy, political science, religion, and sociology.

**MAJOR AND RELATED WORK, 48 s.h.**—Major and related work consists of 48 semester hours in the Natural Sciences. This work must be selected from the departments of botany, chemistry, geology, mathematics, physics, psychology, and zoology. The major work consists of not less than 24 semester hours in one department, the choice of courses being subject to the approval of the department. The major work does not include courses primarily open to freshmen.

The related work is taken in at least two other departments and is selected subject to the approval of the major department. It may not include more than one course primarily open to freshmen. A minimum of 14 semester hours of related work is required, 8 hours of which must be in laboratory science. Further information concerning the requirements for the major and related work in the various departments will be found under "Courses of Instruction" (pages 98-172).

**ELECTIVES.**—In addition to the above, the student must elect sufficient courses to complete, with an average grade of "C," the 124 semester hours necessary for graduation.

Students whose courses of study permit may elect a maximum of 18 semester hours in engineering, forestry, or medical science. The courses elected in these subjects must be approved by the major department and the dean of the college.

The total amount of work that a student may take in any one department toward the Bachelor of Science degree is limited to a maximum of 40 semester hours.

On or before the date announced for the spring registration, every sophomore in this group should select his major department in the Natural Sciences and arrange, under the guidance of an adviser in the major department, his program of studies for the following year. He should obtain the adviser's written approval of all courses selected in the division before submitting his program to the dean for final action. In like manner, each upperclassman will recheck the courses in his division of concentration each year with a representative of his major department.

## *Bachelor of Science in Civil, Electrical, or Mechanical Engineering*

The studies for degrees in Engineering, designed for students who are preparing for civil, electrical, or mechanical engineering as a profession, lead to the following degrees: B.S. in C.E., B.S. in E.E., and B.S. in M.E. All curricula of the College of Engineering are fully accredited by the Engineers' Council for Professional Development.

### GROUPS OF STUDIES FOR THE DEGREE OF BACHELOR OF SCIENCE IN CIVIL, ELECTRICAL, OR MECHANICAL ENGINEERING

See the *Bulletin of the College of Engineering* for courses substituted by Air ROTC and Naval ROTC students in the following curricula:

#### *Uniform Freshman Year*

FIRST SEMESTER				SECOND SEMESTER			
			S.H.				S.H.
Math 5	College Algebra	.....	3	Math 50	Analytic Geometry	.....	3
Math 6	Trigonometry	.....	3	Math 51	Calculus I	.....	3
Chem 1	Chemistry	.....	4	Chem 2	Chemistry	.....	4
Engl 1	English	.....	3	Engl 2	English	.....	3
Hist E1	History	.....	3	Hist E2	History	.....	3
GE 1	Drawing	.....	2	GE 2	Descriptive Geometry	.....	2
	Physical Education	.....	1		Physical Education	.....	1
<hr/>				<hr/>			
19				19			

DUKE UNIVERSITY  
GROUP ONE  
CIVIL ENGINEERING  
*Sophomore Year*

FIRST SEMESTER			SECOND SEMESTER		
		S.H.			S.H.
Math 52	Calculus II .....	3	Math 53	Calculus III .....	3
Phys 51	Physics .....	5	Phys 52	Physics .....	5
Econ 51	Economics .....	3	Econ 52	Economics .....	3
GE 57	Statics .....	3	GE 107	Strength of Materials .....	3
CE 61	Surveying .....	4	CE 62	Surveying .....	4
	Physical Education .....	1		Physical Education .....	1
		19			19

*Junior Year*

FIRST SEMESTER			SECOND SEMESTER		
		S.H.			S.H.
Engl 93	Advanced Composition ....	3	Engl 151	Public Speaking .....	3
GE 58	Dynamics .....	3	GE 128	Hydraulics .....	3
CE 131	Structures .....	5	CE 132	Structures .....	5
CE 113	Route Surveying .....	3	CE 118	Materials .....	3
EE 123	Electric Circuits .....	4	EE 124	Electric Machinery .....	4
		18			18

*Senior Year*

FIRST SEMESTER			SECOND SEMESTER		
		S.H.			S.H.
CE 123	Water Supply .....	4	CE 124	Water Purification .....	3
CE 135	Soils .....	3	CE 116	Highways .....	3
CE 133	Reinforced Concrete .....	4	CE 140	Indeterminate Structures ..	3
ME 103	Heat Power .....	3	ME 104	Heat Power .....	3
ME 115	Mech. Eng. Laboratory ....	1	ME 116	Mech. Eng. Laboratory ....	1
	Elective (Non-Technical) ..	3		Civil Eng. Elective.....	2
		18		Elective (Non-Technical) ..	3
		18			18

GROUP TWO  
ELECTRICAL ENGINEERING  
*Sophomore Year*

FIRST SEMESTER			SECOND SEMESTER		
		S.H.			S.H.
Math 52	Calculus II .....	3	Math 53	Calculus III .....	3
Phys 51	Physics .....	5	Phys 52	Physics .....	5
Econ 51	Economics .....	3	Econ 52	Economics .....	3
GE 57	Statics .....	3	ME 52	Kinetics—Mechanism .....	4
EE 51	Survey—Electrical Engineering .....	1	EE 52	Fields .....	3
Engl 93	Advanced Composition ....	3		Physical Education .....	1
	Physical Education .....	1			19
		19			19



*Junior Year*

FIRST SEMESTER			SECOND SEMESTER		
		S.H.			S.H.
EE 101	Circuits .....	3	EE 102	Circuits .....	3
EE 107	Circuits Laboratory .....	1	EE 108	Circuits Laboratory .....	1
EE 105	Measurements .....	4	EE 106	Electronics .....	4
Math 131	Differential Equations ...	3	EE 148	D-C Machinery .....	3
ME 103	Heat Power .....	3	ME 104	Heat Power .....	3
ME 115	Mech. Eng. Laboratory ...	1	ME 116	Mech. Eng. Laboratory ...	1
GE 128	Hydraulics .....	3	Engl 151	Public Speaking .....	3
		18			18

*Senior Year*

FIRST SEMESTER			SECOND SEMESTER		
		S.H.			S.H.
EE 257	A-C Machinery .....	3	EE 258	A-C Machinery .....	3
EE 163	Machinery Laboratory .....	1	EE 164	Machinery Laboratory .....	1
EE 261	Communications .....	4	EE 262	Communications .....	4
EE 165	Seminar .....	1	EE 166	Seminar .....	1
EE 159	Transmission .....	3	GE 107	Strength of Materials .....	3
EE	Elective .....	3	GE 109	Materials Laboratory .....	1
	Elective (Non-Technical) ..	3	EE	Elective .....	2
		18		Elective (Non-Technical) ..	3
					18

GROUP THREE

MECHANICAL ENGINEERING

*Sophomore Year*

FIRST SEMESTER			SECOND SEMESTER		
		S.H.			S.H.
Math 52	Calculus II .....	3	Math 53	Calculus III .....	3
Phys 51	Physics .....	5	Phys 52	Physics .....	5
Econ 51	Economics .....	3	Econ 52	Economics .....	3
GE 57	Statics .....	3	ME 52	Kinetics-Mechanism .....	4
ME 53	Materials .....	3	Engl 93	Advanced Composition ...	3
ME 57	Processes .....	2		Physical Education .....	1
	Physical Education .....	1			19
		20			

*Junior Year*

FIRST SEMESTER			SECOND SEMESTER		
		S.H.			S.H.
ME 101	Thermodynamics .....	3	ME 102	Thermodynamics .....	3
ME 113	Mech. Eng. Laboratory ...	1	ME 114	Mech. Eng. Laboratory ...	2
ME 105	Fluid Mechanics .....	3	ME 108	Aeronautics .....	3
GE 107	Strength of Materials .....	3	ME 106	Heat Transfer .....	3
GE 109	Materials Laboratory .....	1	ME 150	Machine Design .....	3
EE 123	Electric Circuits .....	4	EE 124	Electric Machinery .....	4
Engl 151	Public Speaking .....	3			18
		18			

*Senior Year*

FIRST SEMESTER			SECOND SEMESTER		
		S.H.			S.H.
ME 151	Machine Design .....	4	ME 158	Industrial Engineering ....	3
ME 155	Internal Combustion Engines .....	3	ME 162	Power Plants .....	3
ME 153	Heating—Air Conditioning..	3	ME 154	Refrigeration .....	3
ME 159	Mech. Eng. Laboratory ....	2	ME 160	Mech. Eng. Laboratory ....	2
ME	Engineering Elective .....	3	ME	Engineering Elective .....	3
	Elective (Non-Technical) ..	3		Elective (Non-Technical) ..	3
		—			—
		18			17

*Bachelor of Science in Nursing Education*

The requirements for the degree of Bachelor of Science in Nursing Education are designed to prepare qualified graduate nurses for administrative, teaching, and supervisory positions in schools of nursing and in nursing service agencies.

To be eligible for admission to Duke University as a candidate for this degree a student must meet the following requirements:

1. Graduation from an approved secondary school with at least fifteen acceptable units of credit. (See specific requirements for admission to Trinity College and the Woman's College.)
2. Graduation from an approved school of nursing which provides satisfactory preparation in medical, surgical, pediatric, and obstetric nursing, as a minimum.
3. Satisfactory scores on specified tests.
4. Supervisory ratings from three individuals, preferably former teachers and supervisors with whom the individual has had fairly recent contact.

Credit for 120 semester hours (exclusive of physical education) on which an average grade of at least C is made is required for the degree of Bachelor of Science in Nursing Education. The work of the final year must be taken in residence at Duke University. The program of studies leading to this degree must include:

- |   | S.H.       |
|---|------------|
| 1. MINIMUM GENERAL EDUCATION REQUIREMENTS.....  | 38-50      |
| May be taken at Duke University or at any accredited college or university.   |            |
| English 1-2 .....   | 6          |
| Natural science .....   | 8          |
| History (1-2 or 51-52)  |            |
| Economics (51-52)   |            |
| Political Science (61-62) } .....   | 6          |
| Sociology (91-92 or 101) .....  | 3-6        |
| Psychology (91) .....   | 3-6        |
| Electives .....   | 12-18      |
| Literature, art, music, religion, ethics, language are suggested.   |            |
| 2. BASIC NURSING PROGRAM.....   | maximum 40 |
| May be taken at the Duke School of Nursing or at any approved school of nursing. The amount of credit which is granted for the nursing school program is determined on an individual basis. |            |

3. COURSES IN EDUCATION AND NURSING EDUCATION.....	3
88 Psychological Foundation of Modern Education.....	3
118 Educational Psychology—Psychological Development.....	3
84N Social Foundations of Nursing Education.....	3
101N The Curriculum of the School of Nursing.....	3
115-116N Nursing Education: Principles and Practices.....	8
117 Community Nursing Service—Seminar in Field Trips of Community Agencies .....	3
4. FIELD OF CONCENTRATION.....	15
Fifteen semester hours in one field, such as chemistry, physics, psy- chology, sociology, zoology, or in a clinical area and related subjects. No freshman work may be included in these 15 semester hours.	
5. PROFESSIONAL EXPERIENCE	
One year of experience as a graduate nurse is required before the degree is awarded.	

### *Academic-Professional Courses*

The provision whereby a senior may elect the work of the first year in a professional school of the University shall apply solely to eligible students in Trinity College or the Woman's College. The privilege of completing a combined course for the degree is conditioned upon admission to the professional school at the close of the junior year. A student thus admitted registers as a senior in the College and as a first-year student in the professional school.

### ACADEMIC-FORESTRY COMBINATION

A student who has completed the program of study given below with an average grade of C or higher in accordance with the academic regulations stated on pages 79-83 of this Bulletin may, with the approval of the Dean of the College and the Admissions Committee of the School of Forestry, transfer to the School of Forestry. Upon the satisfactory completion of the work of the first year in the School of Forestry the student may become eligible for the degree of Bachelor of Science from Trinity College, Duke University. This provision shall apply solely to eligible undergraduates who have completed three years in residence in Duke University.

Students wishing information concerning admission to the School of Forestry are invited to consult with the Dean of that School. Completion of the first three years of work necessary to qualify for the Academic-Forestry Combination does not insure admission to the Duke University School of Forestry, nor impose any restriction upon the School's freedom in selecting students for admission. The professional degree of Master of Forestry may be obtained upon the satisfactory completion of the work of the second year in the School of Forestry.

The program of studies in preparation for admission to the School of Forestry under the combination program includes the following work:

	S.H.
Uniform Course Requirements for the B.S. Degree .....	48-66
Additional Required Courses .....	24-26
Electives to Make a Total of .....	94
Summer Field Work .....	13

UNIFORM COURSE REQUIREMENTS. These requirements are described on page 90 of this Bulletin. Spanish may be substituted for French in the foreign language requirement. The natural science requirement is met by completion of Botany 1-2. The economics, history, or political science requirement is met by completion of Economics 51-52. The student who does not present for entrance two acceptable units in history must meet the restricted elective requirement by completion of 6 semester hours in history.

ADDITIONAL REQUIRED COURSES. The additional required courses are as follows:

	S.H.
Chemistry 1-2 .....	8
Engineering Drawing 1-2 .....	4
Geology 51 .....	4
Physics 1-2 or 51-52 .....	8-10
	<hr/> 24-26

ELECTIVES. The electives are normally chosen from botany, chemistry, economics, mathematics and philosophy. A minimum of 94 semester hours must be obtained, exclusive of summer field work, for uniform course requirements, additional required courses and electives.

SUMMER FIELD WORK. This work of 13 weeks, preferably to be taken upon completion of the junior year, includes:

	S.H.
Civil Engineering S110. Plane Surveying .....	4
Forestry S150. Forest Surveying .....	5
Forestry S151. Forest Mensuration .....	4
	<hr/> 13

Students in this combination should have their programs approved by the special adviser for students in the Academic-Forestry Combination. The name of this adviser may be obtained at the dean's office.

ACADEMIC-LAW COMBINATION

A student who has completed with an average grade of C or higher, 96 semester hours of undergraduate work, including the uniform course requirements for the degree of Bachelor of Arts and the work of the Junior year in his major and related fields, may, with the approval of the dean of the College, transfer to the Duke University School of Law and be eligible for the degree of Bachelor of Arts from Duke University upon the satisfactory completion therein of the work of the first year.

It is understood that this provision shall apply solely to eligible

undergraduates who have completed three years in residence in Duke University, and that not less than the full first-year's work of the Law School will be acceptable for credit towards the bachelor degree.

No single discipline or program of study can be described as the best preparation for the study of law. There are various methods of approach to legal study. Students differ with respect to the undergraduate studies by which they profit most in preparing themselves for law school.

Completion of the undergraduate work necessary to qualify for the Academic-Law Combination does not insure admission to the Duke University School of Law, nor impose any restriction whatever upon its freedom in selecting students for admission. Students wishing further information are invited to consult with the Dean of the School of Law.

### ACADEMIC-NURSING COMBINATION

A student who graduated from the Duke University School of Nursing in September, 1947, or thereafter, with an average grade of C or better, may, upon recommendation of the Dean of the School of Nursing, apply for admission to the Woman's College of Duke University. If accepted, she may obtain the degree of Bachelor of Arts or Bachelor of Science by fulfilling the requirements of either degree.

Forty semester hours of credit toward the 120 semester hours (exclusive of physical education) required for the Bachelor's degree are allowed for the three-year nursing program. At least 30 semester hours, of which 24 semester hours must be in courses numbered 100 or above, must be taken in residence in the Woman's College. An average grade of C or better is required for all work.

The program of studies leading to the degree of Bachelor of Arts must include:

	S.H.
1. UNIFORM COURSE REQUIREMENTS .....	47-59
English 1-2 .....	6
Language (completion of the third college year) .....	6-18
Natural Science .....	11
Religion .....	6
Social Science and History .....	12
Literature, Music, Art, and Philosophy .....	6
2. BASIC NURSING PROGRAM .....	40
3. FIELD OF CONCENTRATION .....	12
At least 12 semester hours in one department other than nursing in courses not primarily open to freshmen .....	12
4. ELECTIVES .....	9-21

To be eligible for the degree of Bachelor of Science, a student must complete the course of study outlined under the Requirements for the Degree of Bachelor of Science.



# Courses of Instruction Trinity College and the Woman's College



NOTE: Courses primarily for freshmen are numbered from 1 to 49; those primarily for sophomores are numbered from 50 to 99; those primarily for juniors and seniors from 100 to 199; those primarily for seniors and graduates from 200 to 299. The amount of credit for each course is given in semester hours following the description of the course.

The designation (w) or (E) indicates that the course is to be given on the West Campus or on the East Campus. The designation E means Engineering; L, Law; ds, Divinity School. When this designation precedes a course number, the course is not approved for graduate credit.

Odd-numbered courses are offered in the fall semester, and even-numbered courses are offered in the spring semester. Double numbers separated by a hyphen indicate that the course is a year-course and must normally be continued throughout the year if credit is received. A student must secure written permission from the instructor in order to receive credit for either semester of a year-course. Double numbers separated by a comma indicate that although the course is a year-course credit may be received for either semester without special permission.

## COURSES OPEN PRIMARILY TO FRESHMEN

Air Science 1-2  
Art 1-2, 1L-2L  
Botany 1-2  
Chemistry 1-2  
Economics 11  
Education 1, 5  
English 1-2  
French 1-2, 3-4  
German 1-2, 3-4  
Greek 1-2, 15  
Health Education 41  
History 1-2, E1-2

Latin 1-2, 3, 4  
Mathematics 1, 5, 6, 15, 16  
Music 1-2, 11-12, 35-36, 47-48  
Naval Science 101, 102  
Philosophy 48, 49  
Physical Education 1, 2  
Physics 1-2  
Political Science 21, 22  
Religion 1-2  
Spanish 1-2, 3-4  
Zoology 1-2

## AESTHETICS, ART, AND MUSIC

ASSISTANT PROFESSOR EARL G. MUELLER, CHAIRMAN OF THE EXECUTIVE COMMITTEE;  
ASSOCIATE PROFESSOR MARKMAN, DIRECTOR OF UNDERGRADUATE STUDIES IN ART;  
ASSOCIATE PROFESSOR HALL, SUPERVISOR OF FRESHMAN INSTRUCTION IN ART;  
ASSISTANT PROFESSOR JULIA W. MUELLER, DIRECTOR OF UNDERGRADUATE  
STUDIES IN MUSIC; ASSOCIATE PROFESSOR BONE, SUPERVISOR OF  
FRESHMAN INSTRUCTION IN MUSIC; ASSOCIATE PROFESSORS  
JENKINS AND SUNDERLAND; ASSISTANT PROFESSORS  
BRYAN, KLENZ, SAVILLE, WITHERS AND WOOD;  
MR. BRODERSON

## AESTHETICS

FOR SENIORS AND GRADUATES

201-202. THE PHILOSOPHY OF ART.—Analysis with the aid of examples of general terms used in the discussion of art. Reference in recent aesthetic theories.  
6 s.h. (E)

[Not offered in 1953-54]

213-214. HISTORY OF AESTHETICS.—Theories of art and beauty from Pythagoras to Croce. 6 s.h. (E)  
[Not offered in 1953-54]

## ART

*After 1953-54 the introductory courses 1-2 or 51-52 will be prerequisite for all courses in the History of Art and 1L-2L or 51L-52L for all courses in Design.*

## FUNDAMENTALS

1-2. INTRODUCTION TO ART.—This course aims (a) to equip the general student with sufficient vocabulary, both verbal and visual, for a basic understanding of architecture, sculpture, painting, and the minor arts as material reflections of man's ideas; and (b) to introduce the more specialized student to the principles of art criticism, the use of documents, and the nature of media. Open only to freshmen; others, see Art 51-52. 6 s.h. (E & W) STAFF

1L-2L. DESIGN LABORATORY.—This course aims to develop the student's visual faculty through practice with design elements and experience with media. Freshmen intending to elect further courses in Art are advised to carry this course concurrently with Art 1-2. Open only to freshmen enrolled in Art 1-2; others, see Art 51L-52L. 2 s.h. (E) DESIGN STAFF

51-52. INTRODUCTION TO ART.—The aims of this course are identical with those of Art 1-2; the content and method are adapted to the capacities of upperclassmen. Open only to upperclassmen who have not completed Art 1-2. A senior in his last semester may receive credit for one semester. 6 s.h. (E & W) STAFF

51L-52L. DESIGN LABORATORY.—The aims, content, and method of this course are similar to those of Art 1L-2L. Upperclassmen intending to elect further courses in Art are advised to carry this course concurrently with Art 51-52. Open only to upperclassmen enrolled in Art 51-52, and to those who have completed Art 1-2 or 51-52 without electing Design Laboratory. A senior in his last semester may receive credit for one semester. 2 s.h. (E) DESIGN STAFF

## HISTORY OF ART

101. MEDIAEVAL ARCHITECTURE.—A survey of Christian architecture in the Near East and Eastern and Western Europe from the beginnings of the mediaeval style in the late classical period to its disintegration in the fifteenth century. 3 s.h. (E) ASSOCIATE PROFESSOR SUNDERLAND

102. MEDIAEVAL PAINTING AND SCULPTURE.—A study of painting and sculpture in Western Europe from the late classical period through the fourteenth century. 3 s.h. (E) ASSOCIATE PROFESSOR SUNDERLAND

103. RENAISSANCE AND BAROQUE ARCHITECTURE: ITALY.—Architectural patronage of the great families and the Church, as evidenced by the works of individual designers from Brunelleschi through Michelangelo and Palladio to Borromini. 3 s.h. (E) ASSOCIATE PROFESSOR HALL

104. RENAISSANCE AND BAROQUE ARCHITECTURE: SPAIN AND THE NORTH.—An inquiry into the extension of Italian Renaissance and Baroque influence in architecture, and its modification under local conditions elsewhere in Europe. 3 s.h. (E) ASSOCIATE PROFESSOR HALL

105. EUROPEAN ARCHITECTURE SINCE 1700.—An analysis of the sources of contemporary European architecture in the historic revival styles and counter-revolts, technical invention and new structural materials, industrial expansion and social planning. 3 s.h. (E) ASSOCIATE PROFESSOR HALL

106. ARCHITECTURE OF THE AMERICAS.—A study of building in the Western Hemisphere from the Precolumbian cultures to the present with emphasis on the architecture of the United States since the Revolution. 3 s.h. (E) ASSOCIATE PROFESSOR HALL

110. ENGLISH ARCHITECTURE.—The English home, church, and community, studied as the architectural reflection of continental influences, independent developments in the British Isles, and colonial expansion. This course is intentionally directed toward the interests of students majoring in history or literature. 3 s.h. (E) ASSOCIATE PROFESSOR HALL

123. RENAISSANCE PAINTING: ITALY.—A study of Italian painting, mainly in Florence, from the end of the fourteenth through the fifteenth century. 3 s.h. (E) ASSOCIATE PROFESSOR SUNDERLAND

124. ITALIAN ART AFTER 1500.—A study of the mature and late phases in the evolution of Italian Renaissance painting and sculpture. 3 s.h. (E) ASSOCIATE PROFESSOR JENKINS

125. RENAISSANCE PAINTING: THE NORTH.—A study of painting in the Netherlands in the fifteenth and sixteenth centuries. 3 s.h. (E) ASSOCIATE PROFESSOR SUNDERLAND

126. BAROQUE PAINTING: THE NORTH.—A study of the character and tendencies of seventeenth-century painting in Spain, France, and the Lowlands. 3 s.h. (E) ASSOCIATE PROFESSOR SUNDERLAND

129. PAINTING SINCE 1700.—An investigation of the development of painting in the eighteenth and nineteenth centuries. 3 s.h. (E) ASSOCIATE PROFESSOR SUNDERLAND

130. CONTEMPORARY ART.—A study of the twentieth-century movements in painting, sculpture, and the graphic arts in Europe and the Americas. 3 s.h. (E) ASSISTANT PROFESSOR E. MUELLER

150. SURVEY OF PAINTING.—A history of European painting from the Renaissance to the present time. Open to upperclassmen who are not majors and who have not had Art 1-2 or 51-52. 3 s.h. (E) ASSOCIATE PROFESSOR JENKINS

215. RELIGIOUS ART OF THE ANCIENT NEAR EAST.—A specialized study of the development of art, particularly architecture and sculpture, as the material expression of religious ideas in Egypt, Mesopotamia, and in part of Syria and Palestine, to the Persian conquest. 3 s.h. (w) ASSOCIATE PROFESSOR MARKMAN

216. RELIGIOUS ART OF THE CLASSICAL WORLD.—A specialized study of the religious art, particularly architecture and sculpture, of Greece and Rome, with special emphasis on the monuments in the Near East. 3 s.h. (w) ASSOCIATE PROFESSOR MARKMAN

217. AEGEAN ART.—A study of the problems of Aegean art as the forerunner of Greek art and in relation to the contemporary civilization of the eastern Mediterranean world. 3 s.h. (w) ASSOCIATE PROFESSOR MARKMAN

218. EARLY GREEK ART.—A study of the problems of the origin and development of Greek art in the Geometric period to the end of the Archaic. 3 s.h. (w) ASSOCIATE PROFESSOR MARKMAN

#### DESIGN

*Students other than art majors may receive not more than eight semester hours credit for work in studio courses. For any number of semester hours of credit in studio courses an equal number of hours must be taken in history and criticism.*

53-54. BEGINNING STUDIO.—A studio course offering experiment and practice with formal elements of composition in various media. Particular emphasis will be given to drawing; watercolor, collage, and three-dimensional media will be secondarily considered. 4 s.h. (E) ASSISTANT PROFESSOR MUELLER, MR. BRODERSON

55, 56. PAINTING.—A studio course designed to give experience in painting media with individual and group criticism, and discussion of important historic or contemporary ideas in painting as related to student work. Prerequisite: Art 53-54 or consent of the instructor. 4 s.h. (E) ASSISTANT PROFESSOR MUELLER, MR. BRODERSON

157, 158. **ADVANCED PAINTING.**—Emphasis is given to the techniques of various painting and design media. Prerequisite: 55, 56. 4 s.h. (E)

ASSISTANT PROFESSOR MUELLER, MR. BRODERSON

159, 160. **PRINTMAKING.**—This course presupposes a knowledge of design and skill in drawing. Practice will be in wood engraving; block printing; and in copperplate engraving, etching, aquatint and drypoint. Reference will be made to prints in relation to the design of the book, and historic examples of the art of the print will be analyzed in the study of these techniques. Prerequisite: 53-54. 4 s.h. (E)

ASSISTANT PROFESSOR MUELLER, MR. BRODERSON

### DEPARTMENTAL MAJOR IN ART

*Prerequisites:* Introduction to Art (1-2 or 51-52). Design Laboratory (1L-2L or 51L-52L).

*Major Requirements:* The student will select in consultation with his departmental adviser a sequence of courses emphasizing either history or design.

**History of Art:** 24 additional semester hours, of which six hours must be in the 200 group, and four hours may be in design. Distribution emphasizing at least two special areas of study is to be determined with the adviser.

**Design:** 22 additional semester hours, of which sixteen hours must be in design and six hours from courses 102, 123, 124, 125, 126, 129 or 130.

### MUSIC

Courses in music are offered both for the general student who wishes to acquire knowledge of music as literature and on a more technical level for those prepared to major in the field. The courses marked \* are open to general students without prerequisites.

### THEORY

\*11-12. **THEORY I.**—The elements of harmony, rhythm, and form; the visual and aural recognition of scales, intervals, triads, and seventh chords, and their functions in relation to the system of tonality; harmonization of melodies; development of rhythmic discrimination. Designed for those students who wish to pursue a more technical study of music. Three lectures and two laboratory hours. Open to freshmen only. 8 s.h. (E)

STAFF

\*61-62. **THEORY I.**—An amplification of Music 11-12. Open to upperclassmen who have not had Music 11-12. 8 s.h. (E)

STAFF

73-74. **THEORY II.**—A continuation of Music 11-12, plus analysis and composition of the smaller forms; further development of proficiency in harmonization; continuation of aural training; introductory study of counterpoint. Prerequisite: Music 11-12 or 61-62. 6 s.h. (E)

ASSISTANT PROFESSORS BRYAN AND KLENZ

117-118. **THEORY III.**—A continuation of Music 73-74. Emphasis upon development of technical and expressive means and stylistic treatment by practical work in composition, and analysis and observation of larger forms; further study of counterpoint. The completion of an original large form composition for chamber group, chorus, or orchestra. Prerequisites: Music 11-12 or 61-62, and 73-74. 4 s.h. (E)

ASSISTANT PROFESSOR KLENZ

121. **CONDUCTING.**—The conducting of orchestral and vocal scores. Score-reading and analysis, principles of interpretation, establishment of vocal and instrumental conductorial techniques leading to practical experience in conducting the department musical organizations in rehearsal. Prerequisites: Music 11-12 or 61-62, and 73, or consent of the instructor. 3 s.h. (E)

ASSOCIATE PROFESSOR BONE

122. **ORCHESTRATION.**—A study of the technical characteristics and transpositions of the instruments of the modern symphony orchestra and concert band. Instrumentation of piano scores or original compositions for string, woodwind, brass ensembles, and for full symphony orchestra or concert band. Prerequisites: Music 11-12 or 61-62, and 73, or consent of the instructor. 3 s.h. (E)

ASSOCIATE PROFESSOR BONE



## HISTORY AND CRITICISM

\*1-2. INTRODUCTION TO MUSIC.—Rhythm, melody, harmony, form. The instruments of the orchestra and their use. Orchestral, chamber, choral and operatic music of the Classic and Romantic periods. Designed for those students who wish to acquire a general appreciation of music. Open only to freshmen who do not plan to major in music. 6 s.h. (E) ASSISTANT PROFESSOR WITHERS

\*51-52. INTRODUCTION TO MUSIC.—Music from 1700 to the present day. Acquisition of a reading knowledge of notes, rhythms, musical symbols. Study of forms, media, styles, and the lives and works of great representative composers. Not open to music majors or to students who have had Music 1-2. 6 s.h. (E) ASSISTANT PROFESSOR J. MUELLER

65. PIANO ENSEMBLE.—The study and the performance of classical and contemporary two-piano repertoire and the piano concerto. The reading of standard symphonies and overtures arranged for four hands. Emphasis on ensemble principles, rhythm, phrasing, balance. Prerequisites: Music 47A, 48A and 11-12 or 61-62, or consent of the instructor. 1 s.h. (E) ASSISTANT PROFESSOR WITHERS

66. MIXED ENSEMBLE.—Supervised coaching in the technical and interpretative elements of ensemble performance. Ensembles for varying numbers and types of instruments to be arranged. Open only to students concurrently enrolled in Applied Music. 1 s.h. (E) STAFF

95-96. HISTORY OF MUSIC I.—Historical background and development of music in the Classical, Romantic, and Contemporary period. Study of representative compositions from the Mannheim school through Beethoven, first semester; Schubert to the present, second semester. Prerequisites: Music 1-2 or 51-62 or 11-12, or consent of the instructor. 6 s.h. (E) ASSISTANT PROFESSOR SAVILLE

\*133. ORCHESTRAL LITERATURE.—A study of orchestral suites, overtures, concerti, symphonies and symphonic poems selected from literature of the eighteenth century to the present. 3 s.h. (E) ASSOCIATE PROFESSOR BONE

\*134. CHORAL LITERATURE.—A study of representative oratorios, cantatas, and masses from Bach to Stravinsky; religious and social implications of sacred choral compositions and performance from the Baroque to the present. 3 s.h. (E) ASSISTANT PROFESSOR SAVILLE

135. PIANO LITERATURE.—A comprehensive survey of the great works for keyboard instruments, from the time of the English virginal composers to the present. Prerequisites: Music 47A, 48A, 97A, and 98A, or consent of the instructor. 3 s.h. (E) ASSISTANT PROFESSOR WITHERS

136. VOCAL REPERTOIRE.—A study of standard recital repertoire; old Italian and old English songs, German lieder, and the French art song. Open to junior and senior Applied Voice majors. 3 s.h. (E) ASSISTANT PROFESSOR WOOD

137. CHAMBER MUSIC.—A study of form, style, and interpretation of masterpieces of chamber music. Prerequisites: Music 1-2 or 51-52, or 11-12 or 61-62, or consent of the instructor. 3 s.h. (E) ASSISTANT PROFESSOR J. MUELLER

138. CONTEMPORARY MUSIC.—A critical survey of contemporary stylistic trends and theory in the light of their twentieth-century background. Prerequisites: Music 1-2 or 51-52, or 11-12, or 61-62, or consent of the instructor. 3 s.h. (E) ASSISTANT PROFESSOR KLENZ

145-146. HISTORY OF MUSIC II.—Historical background and development of music in the Mediaeval, Renaissance, and Baroque periods. Study of representative compositions from Gregorian Chant through sixteenth century, first semester; Monteverdi through Bach and Handel, second semester. Prerequisites: Music 95-96 or consent of the instructor. 6 s.h. (E) ASSISTANT PROFESSOR SAVILLE

\*164. MUSIC IN THE NINETEENTH CENTURY.—A study of the music of the nineteenth century, from Beethoven to Debussy, with attention to artistic and literary influences, and the relations among the creative minds of the time. Individual projects. 3 s.h. (E) ASSISTANT PROFESSOR J. MUELLER



\*165. OPERA.—Opera from Handel to Strauss; aesthetic and cultural implications of opera from the Baroque to the present. 3 s.h. (E)

ASSISTANT PROFESSOR SAVILLE

195-196. COLLEGUIM MUSICUM (HISTORY OF MUSIC III).—Studies in the integration of music history, theory, and performance. Survey of sources, monuments, and bibliographical techniques. Preparation for performance of representative musical literature through analysis, realization of notations, and stylistic reconstruction. Classroom discussion and reports; also laboratory. Designed for music majors in history or theory and open to others by consent of the instructor. 4 s.h. Laboratory may be taken separately for credit of 2 s.h. (E)

ASSISTANT PROFESSOR KLENZ

#### MUSIC EDUCATION

101-102. PUBLIC SCHOOL VOCAL METHODS.—For Music Education majors. Materials and methods of teaching music in all grades. Study of child voice and song; rhythmic activities; music-reading; discriminative listening; organization and repertoire of school glee clubs and choirs. Elementary grades studied first semester; junior and senior high school levels, second semester. Either semester may be taken singly for credit. Recommended but not required: Music 11-12 or 61-62 or consent of the instructor. 6 s.h. (E)

ASSISTANT PROFESSOR SAVILLE

103-104. INSTRUMENTAL METHODS.—For Music Education majors. Materials and methods of teaching instrumental music in the public schools; emphasis on instrumental pedagogy, organization, and administration of the junior and senior high school instrumental curriculum. Designed primarily for Music Education majors. Prerequisites: Music 11-12 or 61-62, or consent of the instructor. 6 s.h. (E)

ASSOCIATE PROFESSOR BONE

106. PIANO METHODS AND MATERIALS.—A study of the materials and methods of piano pedagogy. The appropriate choice of essential and supplementary literature. Development of technique, style, and musicianship. Supervised practice teaching. Prerequisites: Music 47A, 48A, 97A, and 98A, or consent of the instructor. 3 s.h. (E)

ASSISTANT PROFESSOR WITHERS

107. VOCAL PEDAGOGY.—The problems of private vocal teaching. A detailed study of the function of the vocal mechanism and of the psychological factors in teaching. Open to junior and senior Applied Voice majors, and others with the consent of the instructor. 3 s.h. (E)

ASSISTANT PROFESSOR WOOD

151-152. PUBLIC SCHOOL MUSIC EDUCATION.—For Elementary Education majors. Materials and methods of teaching music in the first six grades. Study of child voice and song; rhythmic activities; discriminative listening; music-reading; use of elementary instruments such as the tonette, autoharp and rhythm band instruments; emphasis on creative approach and on integration of music with other subjects. Either semester may be taken singly for credit. 6 s.h. (E)

ASSISTANT PROFESSOR SAVILLE

#### APPLIED MUSIC

Members of the Department offer instruction in the following media: A. Piano; B. Strings; C. Woodwinds; D. Brass; E. Voice.

A student who plans to take Applied Music should consult the appropriate faculty member as early as possible before registering for the course offered in his chosen medium at his class level. His proficiency before registration is tested by audition and rated as Grade I-VIII. Upon satisfactory completion of the course his proficiency is again rated, and his Grade recorded as a Roman numeral following the course number; *e.g.*, a freshman who passes the first semester course in Piano with a proficiency rating of Grade VI is recorded as having completed Music 47A-VI, a senior who passes the first semester course in Violin with a proficiency rating of Grade II is recorded as having completed Music 197B-II, and so on. This is in addition to the customary letter-grades recorded for students in all courses.

35E-36E. VOCAL DICTION.—Problems of diction as specifically applied to the art of singing. Required of all Applied Voice majors. 2 s.h. (E)

ASSISTANT PROFESSOR WOOD

47A-48A, 97A-98A, 147A-148A, 197A-198A. PIANO.—For freshmen, sophomores, juniors, seniors. 2 s.h. (E) ASSISTANT PROFESSORS SAVILLE AND WITHERS

47B-48B, 97B-98B, 147B-148B, 197B-198B. VIOLIN, VIOLA, CELLO.—For freshmen, sophomores, juniors, seniors. 2 s.h. (E) ASSISTANT PROFESSORS KLENZ AND J. MUELLER

47C-48C, 97C-98C, 147C-148C, 197C-198C. WOODWINDS.—For freshmen, sophomores, juniors, seniors. 2 s.h. (E) ASSOCIATE PROFESSOR BONE

47D-48D, 97D-98D, 147D-148D, 197D-198D. BRASS.—For freshmen, sophomores, juniors, seniors. 2 s.h. (E) ASSISTANT PROFESSOR BRYAN

47E-48E, 97E-98E, 147E-148E, 197E-198E. VOICE.—For freshmen, sophomores, juniors, seniors. 2 s.h. (E) ASSISTANT PROFESSOR WOOD

*Requirements and Credits:* One semester hour of credit is allowed for one period of instruction per week, and a minimum of one hour of practice daily, under the particular conditions specified below, and in accordance with standard university practice in grading proficiency. Instruction may be private or in classes. Class instruction, limited to a minimum of 4 and a maximum of 7 students, is restricted to the first 4 grades. For any number of semester hours of credit in Applied Music, an equal number of hours must be taken in Music Theory or Music History.

Majors in Music Theory must earn 6 semester hours credit in Applied Music. Credit may be reckoned from Grade I.

Majors in Music History and Criticism must earn 6 semester hours credit in Applied Music. Credit may be reckoned from Grade I.

Majors in Music Education must earn 7 semester hours credit in Applied Music, as follows:

General (Choral) majors:

Major medium, reckoned from Grade III.—5 s.h.

Minor medium, reckoned from Grade I.—2 s.h.

Instrumental majors:

Major medium, reckoned from Grade III.—5 s.h.

Minor medium, reckoned from Grade I.—2 s.h.

Piano proficiency through Grade II.

Students other than Music Majors may receive not more than 8 semester hours credit for work in Applied Music. Credit may be reckoned from Grade I.

*Fees per Semester:* Fees for instruction in Applied Music include rental of practice facilities sufficient to meet the credit requirements. They are payable to the Treasurer's Office of Duke University at the beginning of each semester, as follows:

One ½ hour private lesson per week for one semester.....\$45.00

Two ½ hour private lessons per week or one 1 hour

private lesson per week for one semester..... 80.00

One 1 hour class lesson per week for one semester..... 25.00

One hour's daily use of cubicle with piano for one semester... 15.00

One hour's daily use of cubicle without piano for one semester.. 10.00

## DEPARTMENTAL MAJOR IN MUSIC

*Prerequisite:* Music 11-12 or 61-62.

*Major Requirements:* 24 s.h. including 6 s.h. in Applied Music. The major student will select, in consultation with his departmental adviser, a sequence of Music courses emphasizing (a) theory, or (b) history and criticism, or (c) education, or (d) the use and understanding of a particular medium.

## DEPARTMENTAL ORGANIZATIONS

Duke University Concert Band  
Duke University Marching Band  
Duke University Brass Ensemble  
Duke University Chamber Orchestra  
Duke University Symphony Orchestra  
Duke University Madrigal Singers  
Collegium Musicum

## AIR SCIENCE

PROFESSOR KNIGHT, COLONEL, USAF, CHAIRMAN; ASSOCIATE PROFESSOR MCBRYDE, LIEUTENANT COLONEL, USAF, DIRECTOR OF UNDERGRADUATE STUDIES; ASSISTANT PROFESSOR SMITH, CAPTAIN, USAF, SUPERVISOR OF FRESHMAN INSTRUCTION; ASSISTANT PROFESSORS RENKEN, MAJOR, USAF, AND CLARK, CAPTAIN, USAF; MAJOR MYERS, USAF, CAPTAIN DELLINGER, USAF, AND CAPTAIN STEVENS, USAF

**ELIGIBILITY REQUIREMENTS.**—All physically qualified freshmen who are citizens of the United States and are enrolled in Trinity College or the College of Engineering are eligible to enroll in the Air Force ROTC. Veterans may be exempted from the freshman and sophomore courses (AS 1-2 or AS 51-52). In special cases where permission has been granted, certain qualified students from the Graduate and Professional Schools may be enrolled.

**AIR FORCE ROTC COURSES.**—For the academic year 1953-54, all freshmen, sophomore and junior courses are the same for students of Trinity College and the College of Engineering.

Advanced courses for senior year (academic year 1953-54 only) consist of three options as follows: Administration and Logistics, open to students of Trinity College; Flight Operations, open to students of both Trinity College and the College of Engineering who desire to become flying officers; General Technical, for Engineering students and students majoring in Mathematics, Physics and Chemistry.

The courses are established by the United States Air Force and are approved by the College as electives for all undergraduates. Field or laboratory instruction in leadership, drill, and exercise of command is included as a part of all courses to indoctrinate the student in the fundamental principles of command.

## BASIC COURSES

The following courses are required of students in the Air Force Reserve Officers' Training Corps, as outlined in the various curricula:

**AS 1-2. FIRST YEAR BASIC AIR SCIENCE.**—This course introduces the student to the AFROTC Program and the Field of Aviation. The fundamentals of global geography are studied in relationship to international tensions and the resulting formation of security organizations. The course concludes with an analysis of the instruments of National Military Security. 4 s.h. (w) STAFF

**AS 51-52. SECOND YEAR BASIC AIR SCIENCE.**—Stress is laid upon the elements of aerial warfare including targets, weapons, aircraft, air oceans, air bases, and Air Force organizations. A survey is made of the careers open to personnel in the Air Force. 4 s.h. (w) STAFF

## ADVANCED COURSES

All students selected to continue in Air Science pursue:

**AS 101-102. FIRST YEAR ADVANCED AIR SCIENCE.**—The first semester is concerned with the Air Force commander and his staff; techniques of problem solving; communications processes and Air Force correspondence; military law, courts and boards. The second half of the course deals with Applied Air Science including aircraft engineering, navigation and weather. Attention is also given to the functions of an Air Force base. Prerequisites: AS 1-2 and 51-52 or equivalent. 8 s.h. (w) STAFF

Air Science seniors pursue one of the following specialties during academic year 1953-54:

## ADMINISTRATION AND LOGISTICS

**AS 201-202. ADVANCED AIR FORCE ADMINISTRATION.**—A study of military procedure in administration, management, law, teaching, career development, comptroller, inspection and problem solving and writing combined with an analysis of staff responsibilities and interrelationship. Prerequisites: AS 1-2 and 51-52 or equivalent, and AS 101-102. 8 s.h. (w)

LIEUTENANT COLONEL MCBRYDE AND CAPTAIN CLARK

## FLIGHT OPERATIONS

AS 221-222. ADVANCED FLIGHT OPERATIONS.—This course is a continuation of AS 121-122 (now replaced by AS 101-102) with emphasis on electronic and radar navigation and bombardment; electrical counter measures and problems of all weather flight operations. Officer orientation in this course comprises military management, law, administration, and related topics. Prerequisites: AS 1-2, 51-52 or equivalent, and 121-122. 8 s.h. (w) STAFF

## GENERAL TECHNICAL

AS 213-232. ADVANCED AIR FORCE TECHNOLOGY.—This course is a continuation of AS 131-132 (now replaced by AS 101-102) with emphasis on more highly specialized technical developments such as new metals and plastics, aircraft and aerodynamics, engines and propulsion units, armament and weapons, guided missiles and nuclear energy. Officer orientation in this course comprises military management, law, administration and related topics. Prerequisites: AS 1-2, 51-52 or equivalent, and 131-132. 8 s.h. (w) COLONEL KNIGHT

## BOTANY

PROFESSOR BLOMQUIST, CHAIRMAN; PROFESSOR OOSTING, DIRECTOR OF UNDERGRADUATE STUDIES; ASSOCIATE PROFESSOR ANDERSON AND MR. MANLY, SUPERVISORS OF FRESHMAN INSTRUCTION; ASSISTANT PROFESSOR PHILPOTT, SUPERVISOR OF FRESHMAN INSTRUCTION (WOMAN'S COLLEGE); PROFESSORS HARRAR, KRAMER AND WOLF; ASSOCIATE PROFESSORS ANDERSON, BILLINGS, NAYLOR, AND PERRY; ASSISTANT PROFESSOR WARREN; MR. SHIRLING; AND ASSISTANTS

1. GENERAL BOTANY.—An introduction to the structure and life-processes of seed plants and the environmental factors influencing their distribution. Laboratory, discussions, and field trips. Three two-hour periods. 4 s.h. (w & E) STAFF

2. GENERAL BOTANY.—A survey of the plant kingdom with emphasis on reproduction and an introduction to identification. Three two-hour periods. Prerequisite: Botany 1. 4 s.h. (w & E) STAFF

51. CULTURE AND PROPAGATION OF PLANTS.—Experimental studies of the processes involved in growth, and the application of this knowledge to the selection, growth, and propagation of plants. Prerequisite: one year of botany. 4 s.h. (w) PROFESSOR KRAMER

52. PLANT IDENTIFICATION.—Practice in the identification of local plants, especially flowering plants, and a study of the principles and rules underlying plant classification. Laboratory, lectures, and field trips. Prerequisite: one year of botany. 4 s.h. (w) PROFESSOR BLOMQUIST

53. ECOLOGY OF ECONOMIC PLANTS.—The principles of plant growth and distribution as applied to crop plants. Forest, grassland, and representative cultivated species will be considered in relation to environment. Prerequisite: one year of a natural science. 3 s.h. (E) PROFESSOR OOSTING

55. MORPHOLOGY AND ANATOMY OF VASCULAR PLANTS.—A comparative study of representative ferns and seed plants, including vegetative and reproductive structures. Prerequisite: one year of botany. 4 s.h. (E) ASSISTANT PROFESSOR PHILPOTT

101. PRINCIPLES OF HEREDITY.—The basic principles of heredity and their significance. Lectures, three hours; laboratory, two hours; conference (attendance optional), one hour. Laboratory work includes experimental breeding of the fruit fly. May be taken as a lecture course without laboratory. Prerequisite: one (high-school or college) course in biology, botany, or zoology. High-school or college algebra recommended. 3 or 4 s.h. (w) ASSOCIATE PROFESSOR PERRY

103. GENERAL BACTERIOLOGY.—A study of the morphology and fundamental physiological processes of bacteria; their relationship to sanitation, public health, soil fertility, and food preservation. Prerequisite: one year of botany or zoology, or equivalent. 4 s.h. (w) ASSISTANT PROFESSOR WARREN



104. THE STRUCTURE AND IDENTIFICATION OF LOWER PLANTS.—A study of representative examples of algae, fungi, mosses and liverworts, including collection, identification, and classification of common forms. Offered in alternate years. Prerequisite: one year of botany. 4 s.h. (w) ASSOCIATE PROFESSOR ANDERSON

151. INTRODUCTORY PLANT PHYSIOLOGY.—The principal physiological processes of plants, including water relations, synthesis and use of foods, and growth phenomena. Prerequisite: Botany 1, 2 or equivalent; one year of chemistry recommended. 4 s.h. (w) PROFESSOR KRAMER

156. PLANT ECOLOGY.—The principal factors affecting plants and plant communities as they exist in different environments. Laboratory, lectures, and field trips. Prerequisites: Botany 1, 2 and 52, or equivalent. 4 s.h. (E) ASSOCIATE PROFESSOR BILLINGS

202. GENETICS.—The principles of heredity, their cytological basis, and their bearing on other fields of biology. Laboratory work involves experimental breeding of the fruit fly and interpretation of data from the breeding of plants. Offered in alternate years. Prerequisites: one year of botany or zoology, or equivalent, and college algebra. 4 s.h. (w) ASSOCIATE PROFESSOR PERRY

203. PLANT CYTOLOGY.—A study of the structure and organization of plant cells in relation to growth, reproduction, and especially heredity. Offered in alternate years. Prerequisite: one year of botany. 4 s.h. (w) ASSOCIATE PROFESSOR ANDERSON

204. ADVANCED PLANT ANATOMY.—The structure of vegetative and reproductive organs of seed plants. Physiological and ecological implications of structure are stressed. Offered in alternate years. Prerequisite: Botany 55 or equivalent. 4 s.h. (w)

216. BOTANICAL MICROTECHNIQUE.—Studies in methods of preparing temporary and permanent microscopical slides; theory of staining; the use of the microscope, especially microscopical measurements; drawing, and photomicrography, botanical photography, and lantern slides. Prerequisite: two semesters of natural science. 4 s.h. (w) ASSOCIATE PROFESSOR ANDERSON

221. STRUCTURE AND CLASSIFICATION OF FUNGI.—Prerequisite: two semesters of botany. 4 s.h. (w) PROFESSOR WOLF

222. PHYSIOLOGY AND ECOLOGY OF FUNGI.—Prerequisite: Botany 221 or equivalent. 4 s.h. (w) PROFESSOR WOLF

225-226. SPECIAL PROBLEMS.—Students with adequate training may do special work in the following fields:

a. BACTERIOLOGY, MYCOLOGY, AND PLANT PATHOLOGY.

ASSISTANT PROFESSOR WARREN, PROFESSOR WOLF  
ASSOCIATE PROFESSOR ANDERSON

b. CYTOLOGY.

c. ECOLOGY.

PROFESSOR OOSTING AND ASSOCIATE PROFESSOR BILLINGS

d. GENETICS.

ASSOCIATE PROFESSOR PERRY

e. MORPHOLOGY AND ANATOMY OF HIGHER GROUPS.

PROFESSOR HARRAR AND OOSTING

f. MORPHOLOGY AND TAXONOMY OF LOWER GROUPS.

PROFESSOR BLOMQUIST AND ASSOCIATE PROFESSOR ANDERSON

g. PHYSIOLOGY.

PROFESSOR KRAMER AND ASSOCIATE PROFESSOR NAYLOR

h. PLANT MICROCHEMISTRY.

i. TAXONOMY OF HIGHER GROUPS.

PROFESSOR BLOMQUIST

j. SENIOR SEMINAR.—1 s.h. (w)

STAFF

252. ADVANCED PLANT PHYSIOLOGY.—The physicochemical processes and conditions underlying the physiological processes of plants. Prerequisite: Botany 151 or equivalent; organic chemistry recommended. 4 s.h. (E)

ASSOCIATE PROFESSOR NAYLOR



253. **PHYSIOLOGY OF GROWTH AND DEVELOPMENT.**—Consideration of the internal factors and processes leading to the production of new protoplasm and its differentiation at the cellular, tissue, and organ level in plants. Prerequisite: Botany 151 or equivalent; organic chemistry recommended. 3 s.h. (E)

ASSOCIATE PROFESSOR NAYLOR

254. **PLANT WATER RELATIONS.**—A study of factors affecting the availability of water, its absorption and use in plants, and the effects of water deficits on plant processes. Assigned readings, reports, and lectures. Prerequisite: Botany 151 or equivalent. 3 s.h. (w)

PROFESSOR KRAMER

255. **ADVANCED TAXONOMY.**—A study of the historical background of plant taxonomy, modern concepts and systems of classification, nomenclatorial problems and the taxonomy of specialized groups. Prerequisite: two years of botany, including Botany 52 or equivalent. 4 s.h. (w)

PROFESSOR BLOMQUIST

256. **COMMUNITY ANALYSIS AND CLASSIFICATION.**—The development of concepts and methods in synecology leading to present applications of theory and field techniques. Prerequisite: Botany 156 or equivalent. 3 s.h. (E)

PROFESSOR OOSTING

257. **PRINCIPLES OF PLANT DISTRIBUTION.**—Interpretations of floristic and ecological plant geography of world vegetation. Prerequisite: 156 or equivalent. 3 s.h. (E)

ASSOCIATE PROFESSOR BILLINGS

259. **ENVIRONMENTAL MEASUREMENTS.**—Methods of obtaining and evaluating climatological data for ecological purposes with special attention to instrumentation and microclimate. Prerequisite: Botany 151 and 156 or equivalent. 3 s.h. (E)

ASSOCIATE PROFESSOR BILLINGS

#### FOREST BOTANY

224. **FOREST PATHOLOGY.**—Special reference to diseases of forest trees. Prerequisites: Botany 1, 2. 3 or 4 s.h. (w)

PROFESSOR WOLF

253. **DENDROLOGY.**—Nomenclature, classification, and identification of woody plants with special reference to species indigenous to southeastern United States and other important forest regions of temperate North America. Laboratory and field work. Prerequisite: one year of botany. 3 s.h. (w)

PROFESSOR HARRAR

Related courses which may be counted toward a major in botany. Zoology-110. Introduction to Genetics. 2 s.h. (w)

ASSISTANT PROFESSOR ROBERTS

#### DEPARTMENTAL MAJOR

*Prerequisites:* Botany 1 and 2.

*Major Requirements:* A minimum of 21 hours (B.S., 24 hours) of work including courses 52, 55, and 104. The remaining hours may be selected from any other courses in the Department for which the student is eligible, subject to the approval of the Departmental Adviser. All majors are expected to register for Senior Seminar for one semester of their senior year.

*Related Work:* Courses in at least two Natural Science Departments sufficient to total, with major work, 42 s.h. (B.S., 48 s.h.).

#### CHEMISTRY

PROFESSOR HOBBS, CHAIRMAN; PROFESSOR SAYLOR, DIRECTOR OF UNDERGRADUATE STUDIES;

PROFESSOR HILL, SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSORS BIGELOW,

GLOCKLER (VISITING LECTURER), GROSS, HAUSER, LONDON AND VOSBURGH;

ASSOCIATE PROFESSORS BRADSHAW AND BROWN; ASSISTANT PROFESSORS

STROBEL AND WILDER; DRs. CLEVER AND KRIGBAUM,

AND ASSISTANTS

1-2. **GENERAL INORGANIC CHEMISTRY.**—Lectures and recitations on the elementary principles of chemistry and on the occurrence, preparation, properties, and uses of the elements and their compounds. The laboratory work includes quali-

tative analysis of some of the more common metals. One lecture, two recitations, and three laboratory hours, throughout the year. 8 s.h. (w & e)

PROFESSOR HILL; ASSOCIATE PROFESSORS BRADSHAW AND BROWN;  
ASSISTANT PROFESSORS STROBEL AND WILDER; DRs. CLEVER  
AND KRIGBAUM; AND ASSISTANTS

61. FUNDAMENTALS OF ANALYTICAL CHEMISTRY.—A study of the reactions of electrolytes in solution and of chemical equilibrium illustrated by laboratory experiments involving the techniques of gravimetric, volumetric, and colorimetric analysis. One lecture, one recitation and six laboratory hours. Prerequisites: Chemistry 1-2, and Mathematics 6 or equivalent. 4 s.h. (w)

PROFESSOR SAYLOR AND VOSBURGH; ASSISTANT PROFESSORS STROBEL  
AND WILDER; DRs. CLEVER AND KRIGBAUM; AND ASSISTANTS

70. QUANTITATIVE ANALYSIS.—A study of the theory and technique of inorganic gravimetric and volumetric analysis. One lecture, one recitation, and six laboratory hours. Prerequisite: Chemistry 61. 4 s.h. (w)

PROFESSORS SAYLOR AND VOSBURGH; ASSISTANT PROFESSORS STROBEL  
AND WILDER; DRs. CLEVER AND KRIGBAUM; AND ASSISTANTS

131. ADVANCED QUANTITATIVE ANALYSIS.—A second course in the theory and technique of inorganic analysis with special reference to the analysis of complex materials. One lecture and six laboratory hours. Prerequisite: Chemistry 70. 3 s.h. (w)

PROFESSORS VOSBURGH AND SAYLOR AND ASSISTANT

151-152. ORGANIC CHEMISTRY.—An introduction to the study of the compounds of carbon in which the chemistry of aliphatic and aromatic compounds is considered. Laboratory experiments are selected to illustrate the more important reactions and preparations of organic compounds. Two lectures, one recitation, and three laboratory hours. Prerequisite: Chemistry 61. Course 151 is prerequisite for 152. 8 s.h. (w)

PROFESSORS BIGELOW AND HAUSER; ASSOCIATE PROFESSORS BRADSHAW  
AND BROWN; ASSISTANT PROFESSOR WILDER; AND ASSISTANTS

206. ELEMENTS OF THEORETICAL CHEMISTRY.—A course in the general principles of physical chemistry for students who do not present credit in calculus. Credit is not given for both 206 and 261-262. Three recitations and three laboratory hours. Prerequisites: Chemistry 70, 151-152, Physics 51-52 or 1-2 and Mathematics, 6 s.h. With the permission of the Director of Graduate Studies, graduate students from other departments may offer other advanced science courses in place of some of these prerequisites. 4 s.h. (w)

PROFESSORS SAYLOR AND HOBBS

215-216. ADVANCED INORGANIC CHEMISTRY.—A study of modern theories of valence and molecular structure; also of inorganic compounds, particularly the less common types, illustrated by suitable laboratory preparations. Prerequisites: Chemistry 70, 151-152, and 261-262, or 206. 6 s.h. (w)

PROFESSORS VOSBURGH AND HILL

233. INSTRUMENTAL ANALYSIS.—Experiments in the use of physical measuring instruments in chemical analysis with special attention to optical instruments. One lecture and three laboratory hours. Prerequisites: Chemistry 70 and one year of physics. 2 s.h. (w)

ASSISTANT PROFESSOR STROBEL; PROFESSORS HOBBS, SAYLOR AND VOSBURGH

234. PHYSICO-CHEMICAL METHODS OF ANALYSIS.—Discussion of physico-chemical principles as applied to methods of instrumental analysis, illustrated by laboratory experiments with emphasis on methods involving electrical techniques. One lecture and three laboratory hours. Prerequisites: Chemistry 70 and either 261-262 or 206; either of the latter may be taken concurrently. 2 s.h. (w)

ASSISTANT PROFESSOR STROBEL; PROFESSORS HOBBS, SAYLOR AND VOSBURGH

236. THEORY OF ANALYTICAL CHEMISTRY.—A study of such topics as precision and errors, theories of precipitation and titration, oxidation and reduction, and others, illustrated by typical analytical methods. One lecture. Prerequisites: Chemistry 70 and 261-262. 1 s.h.

PROFESSOR VOSBURGH

251. QUALITATIVE ORGANIC ANALYSIS.—Systematic identification of organic compounds, including a study of solubilities and classification reactions. One lecture and six laboratory hours. With permission of the Director of Graduate

Studies, graduate students may take three hours of laboratory work instead of six and receive 2 semester hours credit. Prerequisites: Chemistry 70 and 151-152. 3 s.h. (w) PROFESSOR HAUSER AND ASSISTANTS

252. ADVANCED ORGANIC PREPARATIONS.—A laboratory course designed to supplement the student's knowledge of fundamental organic processes by a selected group of laboratory exercises accompanied by oral discussions of techniques and theories pertinent to the experiments. Five hours laboratory and lecture with lectures in alternate weeks. Prerequisite: Chemistry 70 and 151-152. 2 s.h. (w) ASSOCIATE PROFESSOR BROWN AND PROFESSOR BIGELOW

253-254. ADVANCED ORGANIC CHEMISTRY.—Discussion of the theories of organic chemistry with special reference in the first semester to the mechanism of reactions and in the second semester to the synthesis of some of the more complex compounds such as vitamins, hormones, and alkaloids. Undergraduates are admitted to this course only by permission of the Director of Undergraduate Studies. Prerequisites: Chemistry 70 and 151-152. 4 s.h. PROFESSORS BIGELOW AND HAUSER

261-262. PHYSICAL CHEMISTRY.—Fundamentals of general theoretical chemistry illustrated by selected laboratory experiments. Two recitations and three laboratory hours. Prerequisites: Chemistry 70, 151-152, Physics 51-52 or 1-2 and Mathematics 51-52 or equivalent. 6 s.h. PROFESSORS HOBBS AND SAYLOR

271. INTRODUCTION TO RESEARCH.—Lectures on the use of chemical literature, research methods, recording and publication of results, and other topics. One lecture. 1 s.h. (w) ASSOCIATE PROFESSOR BROWN

275-276. RESEARCH.—The aim of this course is to give instruction in methods used in the investigation of original problems. It is open to seniors by permission of the Director of Undergraduate Studies. Nine hours a week and conferences. 3 or 6 s.h. (w)

PROFESSORS BIGELOW, GROSS, HAUSER, HILL, HOBBS, LONDON, SAYLOR AND VOSBURGH; ASSOCIATE PROFESSORS BRADSHAW AND BROWN

### DEPARTMENTAL MAJOR

A. For the degree of A.B.

*Prerequisites:* Chemistry 1-2, Mathematics, 6 s.h.

*Major Requirements:* 22 s.h., including Chemistry 61, 70, 151-152, and an additional 6 or 7 s.h., which may be satisfied by 261-262 or by 206 together with 2 or 3 s.h. selected from courses 131, 233, 234 and 251.

*Related Work:* 20 s.h., including Physics, 8 s.h., and a total of 12 s.h. additional, usually in Botany, Geology, Mathematics, Physics, or Zoology.

B. For the degree of B.S.

*Prerequisites:* Chemistry 1-2, Mathematics, 6 s.h.

*Major Requirements:* Chemistry 61, 70, 131, 151-152, 234, 251, 261-262.

*Related Work:* 18 s.h., including Physics, 8 or 10 s.h., and Mathematics 50, 51, and 52.

The language requirements must be satisfied by German and French.

### ECONOMICS AND BUSINESS ADMINISTRATION

PROFESSOR HOOVER, CHAIRMAN; PROFESSOR DE VYVER, DIRECTOR OF UNDERGRADUATE STUDIES; PROFESSORS BLACK, HANNA, HUMPHREY, RATCHFORD, SIMMONS, SMITH, SPENGLER, AND VON BECKERATH; ASSOCIATE PROFESSORS JOERG, LONDON, LEMERT, MANN, SAVILLE, AND SHIELDS; ASSISTANT PROFESSORS CARTER, DEWEY, DICKENS, AND MCKENZIE; MESSRS. BOWDEN, PEARCE, AND WALTER

The courses offered by the Department are listed under two divisions, Economics and Business Administration.

In general, the Economics courses aim to develop in the student such critical and analytical skills as underlie the ability to understand economic problems and

institutions, both in their contemporary and in their historical setting. While no particular vocational or professional goal is emphasized, these courses furnish the academic background necessary for many positions in industry, for work in the economic branches of government service, and for graduate study in economics and the social sciences.

Courses in Business Administration, although more concerned with general principles than with specific applications, stress in greater measure than courses in Economics the knowledge and techniques useful to students definitely preparing for business careers. The student who majors in Business Administration may elect courses in accountancy, business law, and related work, sufficient to qualify for admission to C.P.A. examinations.

### ECONOMICS

#### 51-52. PRINCIPLES OF ECONOMICS.—6 s.h. (E & W)

STAFF

This course must be passed by all students planning to elect further courses in Economics and Business Administration.

One section of Economics 51 will be offered during the spring semester, and one section of Economics 52 will be offered during the fall semester.

103. TRANSPORTATION.—Essential features, problems, and competitive positions of rail, highway, air, and inland-water transportation, with most emphasis on rail transportation. Special attention is given to the economic significance of transportation, and to cost factors, rates and their economic effects and regulations. 3 s.h. (w)

ASSOCIATE PROFESSOR LONDON

107. CONSERVATION.—A study of the extent and distribution of our natural resources and their service in regional and national development. Emphasis will be placed upon both the natural and human factors involved in the genesis of current problems. Term reports dealing with problems of special interest to those participating will be considered. 3 s.h. (w)

ASSOCIATE PROFESSOR LEMERT

132. THE ECONOMIC HISTORY OF THE UNITED STATES.—A study of the agricultural, industrial, commercial, and financial progress of the United States from colonial times to the present day. 3 s.h. (w)

PROFESSOR SMITH

138. BUSINESS STATISTICS.—A survey of the principal statistical methods and their application to economics and business administration. The course deals with collection of statistical data, construction of statistical tables and charts, and a brief study of the fundamental statistical concepts and techniques. Prerequisite: Mathematics 5 or the equivalent. Offered both semesters. 3 s.h. (w)

PROFESSOR HANNA; ASSOCIATE PROFESSOR SAVILLE

Open to juniors and to sophomores in the second semester. Not open to seniors except with the permission of the Director of Undergraduate Studies.

152. GLOBAL GEOGRAPHY.—The subject matter involves resources patterns and world affairs, geonomic problems, geocultural problems, and geographic factors affecting geopolitical questions. No prerequisite. 3 s.h. (E)

ASSOCIATE PROFESSOR LEMERT

153. MONEY, CREDIT AND BANKING.—This course begins with a study of the nature, characteristics, and functions of money, credit, and the commercial banking system. It covers also the history of commercial banking in the United States; the foundation, organization, and functions of the Federal Reserve System; the supervision and control of commercial banks; deposit insurance; and the value of money. 3 s.h. (w)

PROFESSOR SIMMONS; PROFESSOR RATCHFORD; ASSOCIATE PROFESSOR SAVILLE; MR. WALTER

155. LABOR PROBLEMS.—An examination of present-day labor problems followed by an intensive study of methods used by employers and workers in meeting those problems. 3 s.h. (w)

PROFESSOR DE VYVER; ASSISTANT PROFESSOR CARTTER

161. EUROPEAN ECONOMIC PROBLEMS.—This course deals with the losses and economic dislocations of the war, the problem of developing a new pattern of intra-European and world trade, the effort to stabilize prices, expand investments and production, and the effect of economic planning and controls. 3 s.h. (w)

PROFESSOR HUMPHREY



169. **ECONOMICS OF CONSUMPTION.**—Economic problems of the family. Factors determining choice; commercial and legal standards for consumer's goods; consumer credit and co-operation; income and standards of living. 3 s.h. (w)

ASSOCIATE PROFESSOR SAVILLE

186. **LATIN-AMERICAN ECONOMICS.**—Facts and factors in the economic structure and growth of the Latin-American nations; population, labor productivity, and standards of living; problems of industry, agriculture, and mining; transportation and public utilities; monetary and fiscal policies; the migration of capital; economic thought and institutions. 3 s.h. (w)

PROFESSOR SMITH

187. **PUBLIC FINANCE.**—This is a general course in the principles of public finance. It covers the constitutional, economic, and administrative aspects of public revenues, public expenditures, public debts, and intergovernmental fiscal relations. Special attention is given to current trends and problems. 3 s.h. (w)

PROFESSOR RATCHFORD

189. **BUSINESS AND GOVERNMENT.**—An examination of the public policies which most directly affect the operation of competition in the business world. The course considers the leading philosophies of public control and economic development, the validity of their presuppositions, and their influence on legislation, court decisions, and administrative law. 3 s.h. (w)

ASSISTANT PROFESSOR DEWEY

199. **ECONOMIC ANALYSIS.**—This course is devoted to the development of analytical methods in economics. Attention is concentrated on the forces determining outputs and relative prices in a fully employed economy. Both monopolistic and competitive market structures are studied. The welfare significance of market institutions is considered. 3 s.h. (w)

ASSISTANT PROFESSOR MCKENZIE

204. **ADVANCED MONEY AND BANKING.**—Structure and functioning of the monetary and banking mechanism. Presupposes a thorough grounding in the field. Particular attention is given to significant areas involving issues of economic policy. Primary emphasis is placed upon the underlying basis of monetary management and upon its implementation by the central banking authorities. 3 s.h. (w)

PROFESSOR SIMMONS

215. **ECONOMIC SYSTEMS.**—A study of alternative economic systems. An analysis of the basic elements of capitalism and of collectivist types of economic systems. Particular attention is given to an analysis of the economic system of Soviet Russia. Credit for this course will be given only if the student takes Economics 216. 3 s.h. (w)

PROFESSOR HOOVER

216. **ECONOMIC FUNCTIONS OF THE STATE.**—A continuation of Economics 215. A consideration of the economic functions of society and of the contrasting roles of the state in the various economic systems in carrying on these functions. The Nazi system, the quasiosocialized economics of Europe, as well as the modifications of old-style capitalism in the United States are analyzed. Prerequisite: Economics 215. 3 s.h. (w)

PROFESSOR HOOVER

217. **POPULATION PROBLEMS AND RESOURCES.**—Survey of population theory and policy. Study of national and international trends in population—growth and resource—use, together with analyses of their economic and social implications. 3 s.h. (w)

PROFESSOR SPENGLER

218. **BUSINESS CYCLES.**—A study of the various types of cyclical movements in industry, with special emphasis on cycle theory and methods of controlling or modifying business cycles. 3 s.h. (w)

PROFESSOR HUMPHREY

231. **ECONOMIC HISTORY OF EUROPE.**—The economic development of Europe from medieval times to the present, treating such topics as the guilds, mercantilism, money, banking, crises, the Industrial Revolution, the interrelationships of government and business, and the economic consequences of war. 3 s.h. (w)

PROFESSOR SMITH

233. **STATE AND LOCAL FINANCE.**—A study of expenditures, taxation, and financial administration in state and local governments with emphasis on current problems. Special attention will be given to research methods and materials and to the financial relations between state and local governments. Prerequisite: Economics 187 or consent of instructor. 3 s.h. (w)

PROFESSOR RATCHFORD



**234. FEDERAL FINANCE.**—A study of the expenditures, revenues, and financial administration of the government of the United States, with emphasis on current problems. Special attention given to budgetary procedure, corporate and individual income taxes, and the financial relations between Federal and state governments. Prerequisite: Economics 187 or consent of instructor. 3 s.h. (w)

PROFESSOR RATCHFORD

**235. FISCAL POLICY.**—A systematic consideration of fiscal policy and its relation to stabilization, with emphasis on the fiscal activities of the Federal government. Special attention is given to the nature, goals, potentialities and limitations of fiscal policy. One part of the course is devoted to a study of the structure, distribution and management of the Federal debt and its impact upon the financial system. 3 s.h. (w)

PROFESSOR RATCHFORD

**236. TAXATION AND GOVERNMENT FINANCE.**—A basic course in public finance for advanced students. Primary emphasis is placed on taxation and tax policy, with consideration also of government expenditures, financial administration, intergovernmental fiscal relations, and public debts. Readings in texts, monographs, and source materials will be supplemented by lectures, class discussions and reports on special topics. Not open to students who have received credit for Economics 187 or equivalent. 3 s.h. (w)

PROFESSOR RATCHFORD

**237-238. STATISTICAL METHODS.**—A study of statistical methods appropriate for dealing with problems in business and the social sciences. In addition to developing more thoroughly the subjects considered in Business Statistics, the following methods will be considered: simple, multiple, partial, and curvilinear correlation; curve fitting; probability; frequency distributions; and reliability of estimates. Prerequisite: Economics 138 or consent of the instructor. Either semester may be taken for credit. 6 s.h. (w)

PROFESSOR HANNA

**240. NATIONAL INCOME.**—A critical survey of the conceptual framework and structure of national income and its components, the reliability of national income estimates, and their use in analyzing questions of economic policy. 3 s.h. (w)

PROFESSOR HANNA

**241-242. VALUE AND DISTRIBUTION.**—This course is a critical survey of the leading contemporary explanations of price formation and of the determination of interest, rent, wages, and profits. 6 s.h. (w)

PROFESSOR SPENGLER

**243. MATHEMATICAL ECONOMICS.**—A systematic survey of mathematical economic theory. The principal topics are conditions of static equilibrium, including stability conditions, dynamic models using difference equations, and linear production models of input-output analysis and activity analysis. 3 s.h. (w)

ASSISTANT PROFESSOR MCKENZIE

**244. INTRODUCTION TO ECONOMETRICS.**—The theory of statistical model building in economics. The identifiability of parameters in a system of linear difference equations. The statistical estimation of parameters. The design of dynamic economic models. 3 s.h. (w)

ASSISTANT PROFESSOR MCKENZIE

**245. PROBLEMS OF MODERN INDUSTRIALISM.**—Description and analysis of the growth of modern industrialism, of the structure and operation of large scale industry, of the inter-relations of industrial, political, and legal development, and of the implications for industry of the modern welfare state. 3 s.h. (w)

PROFESSOR VON BECKERATH

**256. LABOR LEGISLATION AND SOCIAL INSURANCE.**—A study of the relations of the state to labor problems with special reference to remedial legislation, to interference in labor disputes, and to social insurance. Prerequisite: Economics 155 or with the consent of the instructor. 3 s.h. (w)

PROFESSOR DE VYVER

**257. DYNAMICS OF THE LABOR MOVEMENT.**—A study of the forces which have shaped the growth of the labor movement. Special emphasis on the origin of modern trade unionism, relating its growth with western philosophic developments, and with the changing economic and social structure of society in Europe and America. 3 s.h. (w)

ASSISTANT PROFESSOR CARTTER

258. LABOR MARKET ANALYSIS.—An analysis of the structure of labor markets and the determination of wages. This course combines a critique of modern wage theory with empirical investigations into current problems of employment and wage determination. 3 s.h. (w)  
ASSISTANT PROFESSOR CARTTER

262. TRADE UNIONISM AND COLLECTIVE BARGAINING.—An intensive survey of the trade union as an economic institution is followed by a study of the principles and problems of union-management relationship as found in collective bargaining. Prerequisite: Economics 155 or equivalent. 3 s.h. (w)  
PROFESSOR DE VYVER

265. INTERNATIONAL TRADE AND FINANCE.—A study of the fundamental principles of international trade and foreign exchange. Subjects covered will include international specialization, balance of payments, foreign investments, tariffs and commercial policies, exchange control, exchange rates, and international monetary problems. 3 s.h. (w)  
PROFESSOR HUMPHREY

268. COMPETITIVE VERSUS MONOPOLISTIC ENTERPRISE.—A study of monopoly and imperfect competition as disturbances of a free, self-regulating market economy in an individualistic democratic political system; of the possibilities of public and private action respecting the preservation of these systems; and of the implications of planning and public welfare policies. 3 s.h. (w)  
[Not offered in 1953-54.] PROFESSOR VON BECKERATH

269. CONTEMPORARY EUROPEAN LABOR PROBLEMS.—An introduction to contemporary labor problems of Central Europe with particular emphasis on the effect of communist political pressure on the labor movement. 3 s.h. (w)  
(Same as Political Science 272 and Sociology 272) VISITING PROFESSOR WESTPHALEN

280. ADVANCED ECONOMIC PROBLEMS.—This course is designed to afford students an opportunity to integrate the economic principles which they have acquired in specialized courses, through the application of these principles to current economic problems. Not open to graduate students. 3 s.h. (w)

## BUSINESS ADMINISTRATION AND ACCOUNTING

### A. ACCOUNTANCY

57-58. PRINCIPLES OF ACCOUNTING.—Elementary principles of single proprietorship, partnership, and corporation accounting. Supervised laboratory periods will be assigned. 6 s.h. (w)  
STAFF

60. GENERAL ACCOUNTING.—A one semester course in accounting principles designed for economics majors and other non-business administration students who desire some understanding of basic accounting concepts. This course is required of economic majors who do not take Course 57-58. It must be taken in the sophomore or junior year. Students may not receive credit for both Course 60 and Course 57-58. 3 s.h. (w)  
PROFESSOR DE VYVER; ASSOCIATE PROFESSOR LANDON;  
ASSISTANT PROFESSOR DICKENS

171-172. ADVANCED ACCOUNTING.—Advanced accounting theory and practice applied to the managerial problems of valuation and operation in corporations, consolidations, mergers, and liquidations. Open to students who have completed Economics 57-58. 6 s.h. (w)  
ASSOCIATE PROFESSORS SHIELDS AND MANN

173-174. AUDITING, THEORY AND PRACTICE.—This course is primarily concerned with preparing the student to enter public accounting practice, but some attention is given to internal auditing. During the first semester, auditing techniques and methods are studied through the use of an audit practice set. The work of the second semester deals with matters of auditing and accounting policy examined from the standpoints of the supervising accountant, the business manager, and the investor. Prerequisite: Economics 171-172 and the permission of the department. 6 s.h. (w)  
ASSOCIATE PROFESSOR MANN

175-176. C. P. A. REVIEW.—Thorough practice in classroom to prepare candidates for the Certified Public Accountant examination. The object is to train students to apply accounting principles and to work in classroom under substantially

the same conditions as in the examination room. Practical accounting problems, auditing analysis and theory of accounts. Prerequisite: Economics 171-172 and permission of the department. 6 s.h. (w) PROFESSOR BLACK

177. INCOME TAX ACCOUNTING.—A study of the accounting principles involved in the management of business enterprise under the requirements of Federal income tax laws. Practice is given in the preparation of tax returns. Prerequisite: Economics 171-172 or permission of the instructor. 3 s.h. (w)

ASSOCIATE PROFESSOR SHIELDS

178. ACCOUNTING SYSTEMS.—A presentation of the design and use of basic accounting procedures as applied to specialized business needs. Field trips to selected business units will be arranged. Prerequisite: Economics 171-172 and the permission of the department. 3 s.h. (w)

ASSISTANT PROFESSOR DICKENS

180. GOVERNMENT ACCOUNTING.—Accounting principles and methods used in the control and administration of governmental units. Emphasis is placed upon state, county, and municipal governments. Prerequisite: Economics 57-58 and permission of the instructor. 3 s.h. (w)

ASSOCIATE PROFESSOR SHIELDS

275-276. ADVANCED INDUSTRIAL ACCOUNTING AND MANAGEMENT.—This course traces the ways and means of executive control through statistics and industrial accountancy. Emphasis is put upon the economics of overhead costs. A complete practice set of cost accounting is worked by each student during the course. Prerequisite: Economics 171-172 and permission of the department. 6 s.h. (w)

PROFESSOR BLACK

#### B. COMMERCE AND INDUSTRY

11. ECONOMIC GEOGRAPHY.—A course in regional economic geography embracing the study of the world's major geographic regions, their present and potential production of food and raw materials for manufacture, and the relationships between these factors and the development of manufacturing industries, cities, and commerce. Offered both semesters. 3 s.h. (E & W)

ASSOCIATE PROFESSOR LEMERT

105. INDUSTRIAL MANAGEMENT.—This course deals primarily with the elements and problems of managing the operations of an industrial firm. Topics treated include the functions and responsibilities of management, qualities required in executives, organization, location, the physical plant, materials control, the planning and control of operations, industrial and market research, personnel, budgeting, purchasing, and records and reports. Offered both semesters. 3 s.h. (w)

ASSOCIATE PROFESSOR LANDON; MR. WALTER

109. THE ECONOMIC GEOGRAPHY OF LATIN AMERICA.—This course involves comprehensive study of the resources and people of Mexico, the West Indies, and Central and South America. Special emphasis is placed upon the possibilities and limitations of increases in trade between the United States and the leading Latin-American countries. 3 s.h. (E)

ASSOCIATE PROFESSOR LEMERT

115. FUNDAMENTALS OF GEOGRAPHY.—A study of geographic influences consisting of location, maps and their interpretation, climate, topography, soils, minerals, bodies of water, plants, animals, and the works of man. This course is required of all students in the Elementary School Teaching program, and is also recommended for those intending to specialize in foreign trade or the diplomatic service. 3 s.h. (E)

ASSOCIATE PROFESSOR LEMERT

116. PRINCIPLES OF ECONOMIC GEOGRAPHY.—A study of the economic resources of the world; the products of the agricultural and manufacturing industries; trade routes and trade centers; and influence of geographic factors on the economic development of nations. This course is recommended for those intending to specialize in foreign trade or the diplomatic service. Prerequisite: Economics 115. 3 s.h. (E)

ASSOCIATE PROFESSOR LEMERT

118. ECONOMIC GEOGRAPHY OF THE SOUTH.—A study of the agricultural, commercial, and industrial development, with special emphasis upon the expansion of Piedmont industries. 3 s.h. (E)

ASSOCIATE PROFESSOR LEMERT

120. ECONOMIC GEOGRAPHY OF THE PACIFIC.—The physical influences, natural resources, and economic activities of Asia, Oceania, and portions of the western coasts of North and South America with special emphasis upon their relationship to present developments. 3 s.h. (E) ASSOCIATE PROFESSOR LEMERT

143. CORPORATION FINANCE.—Principles and problems in the financial organization of corporations; the study of corporate securities, the management of capital, the distribution of earnings; industrial combinations; insolvency and reorganization. Though not a prerequisite, Economics 57-58, Principles of Accounting, or Economics 60, General Accounting, are recommended to students electing this course. Offered both semesters. 3 s.h. (w) ASSOCIATE PROFESSOR JOERG

144. INVESTMENTS.—A study of the investment policies of individuals and institutions; the securities markets; sources of investment information and data; the analysis and interpretation of financial statements. Prerequisites: Economics 57-58 or 60, and 143. 3 s.h. (w) ASSOCIATE PROFESSOR JOERG

158. INSURANCE.—The development and basic principles of insurance. This course covers such topics as business uses, policy contracts, costs, and regulation of insurance. Life and fire insurance are emphasized. Offered both semesters. 3 s.h. (w) ASSOCIATE PROFESSOR SAVILLE

168. MARKETING.—The topics covered in this course include the economic importance of markets and the marketing system; marketing functions; organization, and methods, price policies; finance; speculation; market research and the planning of marketing activities; co-operative marketing; criticism of marketing and means for improvement; and regulation. 3 s.h. (w) ASSOCIATE PROFESSOR LANDON

181-182. BUSINESS LAW.—The fundamental principles of law as applied to common business transactions. The topics presented are: contracts, agency, bailments, sales, negotiable instruments, partnerships, corporations, and bankruptcy. *For seniors.* 6 s.h. (w) ASSISTANT PROFESSOR DICKENS

184. COMMERCIAL LAW FOR ACCOUNTANTS.—A review and summation of commercial law principles as they apply to accounting theory and practice. Emphasis will be placed upon the commercial law sections of the Certified Public Accountant examinations. Students are admitted to the course by permission of the instructor. *For seniors.* 3 s.h. (w) PROFESSOR BLACK

188. PERSONNEL MANAGEMENT.—A study of the fundamental principles and problems of labor management and of collective bargaining under modern industrial conditions and under existing labor legislation. Prerequisite: Economics 155. 3 s.h. (w) PROFESSOR DE VYVER

#### DEPARTMENTAL MAJOR

*Prerequisites:* Mathematics 5, Economics 51-52.

*Major Requirements:*

1. Number of hours needed: 24 hours in addition to Economics 51-52.

2. Required Courses:

A. Economics 138.  
Economics 153.

B. Six hours from the following courses:  
Economics 187. Public Finance.  
Economics 199. Economic Analysis.  
Economics 204. Advanced Money and Banking.  
Economics 215. Economic Systems.  
Economics 216. Economic Functions of the State.  
Economics 217. Population Problems.  
Economics 218. Business Cycles.  
Economics 231. Economic History of Europe.  
Economics 234. Federal Finance.  
Economics 245. Modern Industrialism.  
Economics 256. Labor Legislation and Social Insurance.  
Economics 265. International Trade.



## C. 12 hours in Economics, not Business Administration.

Students majoring in Economics are restricted by the general Faculty Regulation which limits course work in Economics and Business Administration to 54 semester hours with not over 36 semester hours in either of the department's subdivisions, Economics and Business Administration.

## RELATED WORK

1. Number of hours needed: 18 hours.
2. Required courses: Economics 60 or 57-58, Principles of Accounting.
3. Departments in which related work is usually taken: Mathematics, psychology, the social sciences and Business Administration. In special cases courses taken in other departments may be counted as related work with the approval of the department and the dean.

## EDUCATION

PROFESSOR CARTWRIGHT, CHAIRMAN; ASSOCIATE PROFESSOR EASLEY, DIRECTOR OF UNDERGRADUATE STUDIES; PROFESSORS BOLMEIER, CARR, CHILDS, AND NAHM; ASSOCIATE PROFESSORS RUDISILL, STUMPF AND WEITZ; ASSISTANT PROFESSORS INGLES, MASSEY, MCLENDON, PETTY, AND RAPPAPORT; DR. ADAMS; AND ASSISTANTS

Courses in the Department of Education are designed for two groups of students: (1) students with teaching experience or others who have definitely chosen teaching as their life-work, and (2) students who desire to study the school as an outstanding social institution. The courses listed in Nursing Education are for students preparing to teach in schools of nursing.

Students who do not expect to teach but merely desire an understanding of the school as part of a liberal education are advised to elect such courses as 54, 84, 88, and 105 for their introductory work in the Department and then to elect further work in accordance with their special interests. Students who expect to teach in the public schools should plan their courses in accordance with the general regulations set forth under Teaching on page 88 of this catalogue. *All prospective teachers must enroll in courses 84 and 88, preferably before their junior year. They are then required to complete courses 103 and 118 before taking either 101-102 or 115-116 in their senior year.*

1. ORIENTATION IN STUDY AND STUDY HABITS.—A course for freshmen whose high-school and other records indicate the need for help in working out satisfactory study methods and in adjusting to college life. Note-taking from reading and lectures, time planning, remedial reading, and pertinent principles of the psychology of learning are among the matters considered. *Either semester.* 3 s.h. (w)  
DR. ADAMS

5. DEVELOPMENTAL READING.—A course consisting of study and practice for the improvement of the reading and study skills. Work is provided in such areas as vocabulary, speed of comprehension, critical interpretation, organization of ideas, and versatility of method in reading for different purposes. 3 s.h. (w)  
ASSOCIATE PROFESSOR RUDISILL

84. SOCIAL FOUNDATIONS OF EDUCATION.—This course is the first of four intended to give the student a thorough survey of the place and function of education and an understanding of the school as a social institution. It is an introductory course emphasizing those historical, philosophical, and sociological factors which explain trends in American education. *Either semester.* 3 s.h. (w & e)

PROFESSOR CARTWRIGHT; ASSOCIATE PROFESSOR STUMPF AND ASSISTANT PROFESSOR MCLENDON

NOTE: Courses 84, 88, 103, and 118 constitute a sequence of 12 hours in Education required of all prospective teachers. Students who intend to teach in the elementary school should confer with Professor Carr, and students who intend to teach in the secondary school should confer with Professor Childs, in order to work this sequence into their schedules. See courses under Nursing Education for modified sequence of courses for students preparing to teach in schools of nursing.



**88. EDUCATIONAL PSYCHOLOGY: LEARNING AND MEASUREMENT.**—This course and Education 118 constitute a general introduction to the field of Educational Psychology. This course deals with (1) the psychology of learning, including: the nature of the learning process; general principles or laws of learning; the course of learning and forgetting; factors influencing efficiency in learning and retention; and the transfer of training; and (2) measurement, including: the basic concepts in the measurement of intelligence; standardized achievement tests; the extent and significance of individual differences in ability and performance. Opportunity will be afforded for examination and study of a variety of tests of intelligence and achievement. *Either semester. 3 s.h. (E)*

ASSOCIATE PROFESSORS EASLEY AND RUDISILL;  
AND ASSISTANT PROFESSOR PETTY

See note following course 84.

**101-102. ELEMENTARY EDUCATION: PRINCIPLES AND PRACTICE.**—The study of the nature, subject matter, and methods of elementary education. The course is designed to give prospective elementary teachers an understanding of basic principles and practices in the organization of instruction and of subject matter for the primary and grammar grades of the public school. Students may elect primary or grammar-grade work, according to their special interests. A minimum of ninety clock hours of observation and supervised practice teaching is required. The specific problems which arise in the student teachers' experiences are treated in group and individual conferences. *For seniors only. 8 s.h. (E)*

PROFESSOR CARR AND ASSISTANT PROFESSOR PETTY

**103. ORGANIZATION AND MANAGEMENT OF THE SCHOOL.**—An introduction to the problems of school organization and administration which are of particular concern to the classroom teacher. Although federal and state control over education is briefly reviewed, the main consideration is the local school system. Considerable attention is given to the administration of teaching personnel, pupil personnel, and the program of studies. *Either semester. 3 s.h. (E)*

PROFESSOR BOLMEIER AND ASSISTANT

See note following course 84.

**105. INTRODUCTION TO EDUCATIONAL SOCIOLOGY.**—A study of the social forces, processes, and values affecting education, and the interaction of school and community. *3 s.h. (E)*  
[Not offered in 1953-54]

PROFESSOR CHILDS

**115-116. SECONDARY EDUCATION: PRINCIPLES AND PRACTICE.**—A study of the nature, scope, and methods of secondary education, emphasizing fundamentals of the teaching process and exemplifying theory by practice. A minimum of ninety clock hours of observation and supervised practice teaching is required. Students preparing to teach in the junior high school are permitted to concentrate in that field. *Since practice-teaching facilities are limited, students with superior records will be given preference in the practice teaching. For seniors only. 8 s.h. (E)*

ASSISTANT PROFESSOR MCLENDON AND ASSISTANTS

**118. EDUCATIONAL PSYCHOLOGY: PSYCHOLOGICAL DEVELOPMENT.**—This course traces the psychological development of the individual from infancy to maturity. The principal topics considered are: the interdependence of hereditary and environmental factors in development, the nature of the development process, the establishment of the early basic patterns of behavior, changes and conditions producing these changes throughout childhood and adolescence to maturity, and the origin and treatment of minor behavior disorders. To the degree practicable, students will observe children in typical and atypical situations as a means of securing concrete data on the problems treated in the course. Not open to students who have had Psychology 121 or 126. Prerequisite: three semester hours in psychology or educational psychology. *Either semester. 3 s.h. (E)*

ASSOCIATE PROFESSOR EASLEY AND DR. ADAMS

See note following course 84.

**142. CHILDREN'S LITERATURE.**—Students enrolled will be allowed to specialize in literature of either the primary or the grammar grades. *3 s.h. (E)*

PROFESSOR CARR AND ASSOCIATE PROFESSOR RUDISILL

161. INTEGRATED ART IN THE PUBLIC SCHOOL.—This course consists of three semester hours of work in materials and methods. (Required of all students intending to teach in the elementary school.) *For juniors and seniors.* 3 s.h. (E)

MR. BRODERSON

162. INDUSTRIAL ART IN THE PUBLIC SCHOOL.—This course consists of three semester hours of work in materials and methods. (Required of all students intending to teach in the elementary school.) *For juniors and seniors.* 3 s.h. (E)

MR. BRODERSON

176. MATERIALS AND METHODS IN HIGH-SCHOOL SCIENCE.—Discussion based upon lectures and collateral reading of such topics as aims, tests for values, the curriculum, classroom procedure, course and lesson planning in secondary school science. Prerequisite: at least 18 hours of science in college. *For seniors only.* 3 s.h. (E)

201. TEACHING AND SUPERVISION OF ARITHMETIC.—Special attention is given to the number system, the fundamental operations (with whole numbers, fractions, and decimals), percentage, and measurements. Considered also are the meaning theory, methods of teaching, problem solving, evaluation, practice and drill, and selection and gradation of arithmetical contents. The course is designed for teachers and supervisors in the elementary school. 3 s.h. (E)

ASSISTANT PROFESSOR PETTY

203. PRINCIPLES OF SCHOOL ADMINISTRATION.—The fundamental facts and procedures of school administration, an analysis of the problems and policies of the organization and direction of a local school system and the functions of the various school officials. Prerequisite: six semester hours in education. 3 s.h. (E)

PROFESSOR BOLMEIER

205. CURRICULUM PROBLEMS IN SECONDARY EDUCATION.—A consideration of the aims and objectives of secondary school subjects, emphasizing practical problems of curriculum-making in the high school. 3 s.h. (E)

PROFESSOR CHILDS

206. SOCIOLOGICAL FOUNDATIONS OF THE SECONDARY SCHOOL SUBJECTS.—A consideration of the aims and objectives of secondary school subjects, emphasizing problems of curriculum-making. Prerequisite: general sociology or approved work in education, including course 105. 3 s.h. (E)

PROFESSOR CHILDS

207. TECHNIQUE OF TEACHING.—An advanced course in the teaching process, dealing with the theory underlying sound technique and applied specifically to the work of the elementary school. 3 s.h. (E)

PROFESSOR CARR

[Not offered in 1953-54]

208A. MENTAL TESTS AND APPLICATIONS.—A study of the development of intelligence testing, the concept of general intelligence, various recent applications of mental tests and training in the giving of individual tests. Prerequisite: course 258 or six semester hours of other work in educational psychology or psychology. 3 s.h. (E)

ASSOCIATE PROFESSOR EASLEY

208B. MENTAL TESTS AND APPLICATIONS.—A continuation of course 208A intended to provide experience in the administration of mental tests and in the interpretation of data. Open only to students approved by the instructor. 2 s.h. (E)

ASSOCIATE PROFESSOR EASLEY

209. STATISTICAL METHODS APPLIED TO EDUCATION.—A study of statistical methods of treating educational and social data designed to enable teacher or administrator to interpret and use the results of scientific investigations in education. 3 s.h. (E)

ASSOCIATE PROFESSOR EASLEY

212. PSYCHOLOGY OF THE ELEMENTARY SCHOOL SUBJECTS.—A study of the psychology of learning as applied to teaching the common school subjects. 3 s.h. (E)

PROFESSOR CARR

213. PROBLEMS IN THE ORGANIZATION AND ADMINISTRATION OF THE ELEMENTARY SCHOOL.—A study of the work of the elementary school principal. 3 s.h. (E)

214. HISTORY OF EDUCATION IN THE UNITED STATES.—A study of the development of the American public school and the interaction of higher education and the public school. 3 s.h.

215. EDUCATIONAL AND VOCATIONAL GUIDANCE.—A survey of the literature on guidance with special reference to secondary education; a critical study of the principles and techniques used in guidance; an attempt to locate the problems most urgently in need of solution. Prerequisite: 12 semester hours in the Department, including course 105 or course 206. 3 s.h. (E) PROFESSOR CHILDS  
[Not offered in 1953-54]

216. PSYCHOLOGICAL PRINCIPLES OF SECONDARY EDUCATION.—A study of adolescence and the psychology of learning as applied to teaching the principal high-school subjects. 3 s.h. (E) PROFESSOR CHILDS  
[Not offered in 1953-54]

222. THE CURRICULUM AND MATERIALS OF THE ELEMENTARY GRADES.—A study of curriculum problems in the elementary schools. 3 s.h. (E) PROFESSOR CARR

224. TEACHING THE SOCIAL STUDIES IN ELEMENTARY SCHOOLS.—This course treats objectives, curriculum trends, methods, and materials in elementary-school social studies. Topics receiving emphasis include unit-planning, use of textbook, the reading program, the using of community resources, audio-visual materials, dealing with controversial issues, teaching time and place concepts, and evolution. Opportunity is provided for teachers to work on their own school problems in the social studies. 3 s.h. (E) PROFESSOR CARTWRIGHT

225. THE TEACHING OF HISTORY AND THE SOCIAL STUDIES.—Evaluation of the objectives, content, materials, and methods in the teaching of History and the Social Studies. 3 s.h. (E) PROFESSOR CARTWRIGHT

226. TEACHING READING IN THE ELEMENTARY SCHOOL.—A study of the nature of the reading process and of principles, methods, and materials for the development of effective reading attitudes and skills as applied both to developmental and remedial programs. Practice is provided with elementary-school children suffering reading retardation, in testing, diagnosis, and daily remedial teaching. 3 s.h. (E) ASSOCIATE PROFESSOR RUDISILL

227. THE PSYCHOLOGY OF LEARNING: PROBLEMS.—The major problems related to the learning process will be examined with the experimental literature bearing on them. The curves of learning and forgetting, the distribution of practice, economical methods of learning, and the transfer of training will be the major topics considered. 3 s.h. (E) ASSOCIATE PROFESSOR EASLEY  
[Not offered in 1953-54]

232. SUPERVISION OF INSTRUCTION.—A survey of supervision as a means of improving instruction and adapting the curriculum to the learner and to community needs. 3 s.h. (E) PROFESSOR CARR

234. SECONDARY-SCHOOL ORGANIZATION AND ADMINISTRATION.—This course is designed especially for principals, teachers, and other prospective members of the secondary-school staff. The scope of secondary education is considered to encompass junior high school, regular high school, senior high, and junior college. Special treatment is given to the problems of internal organization and management. 3 s.h. (E) PROFESSOR BOLMEIER

236. TEACHING READING IN THE SECONDARY SCHOOL.—A study of the nature of the reading process and of principles, methods, and materials for the development of effective reading attitudes and skills as applied both to developmental and remedial programs. Practice is provided with secondary-school children suffering reading retardation, in testing, diagnosis, and daily remedial teaching. For secondary-school teachers of all subjects who wish to improve the reading and study habits of their students. 3 s.h. (E) ASSOCIATE PROFESSOR RUDISILL

253. LEGAL PHASES OF SCHOOL ADMINISTRATION.—The primary purpose of this course is to familiarize prospective school administrators with the legal features of school organization and administration. Although some attention is

given to constitutional and statutory provisions, the main emphasis is upon court decisions relating to education. Students are expected to select appropriate problems in school law for intensive study. 3 s.h. (E) PROFESSOR BOLMEIER

255. GUIDANCE FUNCTIONS OF THE CLASSROOM TEACHER.—A consideration of the philosophy, methods and tools of guidance appropriate to the classroom teacher. This course is designed for students who do not plan to become guidance specialists, but who wish to apply the principles and techniques of guidance. Prerequisites: twelve hours in either education or psychology, or a combination of the two. 3 s.h. (E) ASSOCIATE PROFESSOR WEITZ

258. EDUCATIONAL MEASUREMENTS.—A critical study of the principles and techniques involved in measurement in education with opportunity for individual research. Prerequisite: 12 semester hours in the Department, including a course in educational psychology. 3 s.h. (E) ASSOCIATE PROFESSOR WEITZ

264. RECENT MOVEMENTS IN AMERICAN EDUCATION.—An intensive study of educational thought and practice since 1900. 3 s.h. (E)  
[Not offered in 1953-54]

290. ADMINISTRATION OF SCHOOL PROPERTY.—Planning and management of the school plant and its equipment to meet instructional, health, and community needs for immediate and long-range purposes. This course is intended for teachers and principals as well as for superintendents. Areas to be treated include site selection; trends in design, lighting, ventilation and heating; custodial service and maintenance; and financing. 3 s.h. (E) ASSOCIATE PROFESSOR STUMPF

#### NURSING EDUCATION

Students preparing for administrative, teaching, or supervisory positions in schools of nursing must take, in addition to other courses, substantially the same basic program of work in Education as do prospective secondary school teachers, namely, courses 84, 88, 103, 115-116, and 118. Course 101N below is substituted for course 103 in this program. Courses 84N and 115N-116N are sections of courses 84 and 115-116, respectively, designed especially for nurses.

84N. SOCIAL FOUNDATIONS OF NURSING EDUCATION.—A special section of Education 84, applied to Nursing Education. A survey of major historical, philosophical, and sociological factors which have affected developments in nursing and nursing education. The purpose of the course is to give the student a better understanding of the place of nursing in present day society and the responsibilities of the individual nurse toward that society. 3 s.h. (w)

ASSISTANT PROFESSOR RAPPAPORT

101N. THE CURRICULUM IN THE SCHOOL OF NURSING.—The general principles of curriculum making and the factors which determine the content and organization of the nursing school curriculum are considered in this course. 3 s.h. (w)

ASSISTANT PROFESSOR INGLES

115N-116N. NURSING EDUCATION: PRINCIPLES AND PRACTICE.—A special section of Education 115-116. Principles of teaching applied to the nursing school situations and the planning and evaluation of instruction. Ninety hours of observation and of supervised teaching in the Duke University School of Nursing are required. Four hours of conference, observation, and practice teaching are required each week. Before beginning practice teaching students must complete thirty hours of observation. 8 s.h. (w)

ASSISTANT PROFESSOR RAPPAPORT

[Not open to students who have had course 115-116.]

117N. COMMUNITY NURSING SERVICE.—Designed for administrators, teachers, and supervisors in schools of nursing. Emphasis is on the integration of outpatient departments and community social and health agencies into the nursing school curriculum and on the preparation of nurses for community service. 3 s.h.

ASSISTANT PROFESSOR MASSEY

120N. NURSING EDUCATION: PROBLEMS IN NURSING CARE.—Each student works on an individual problem designed to improve the nursing care of patients. 3 s.h. (w)

ASSISTANT PROFESSORS INGLES AND ZUKOWSKI



124N. NURSING EDUCATION: TEACHING OF THE NURSING ARTS.—In this course an effort is made to help prospective teachers to integrate the facts and principles of the natural, social, and medical sciences into the teaching of nursing arts. Though major emphasis is placed upon problems which are involved in teaching the first course, the concept of the nursing arts as an integral part of each clinical area is stressed. 3 s.h. (w) STAFF

130N. PSYCHOSOMATIC NURSING.—A study of the close relationship between mind and body in all illness, and of the techniques of observation and interview, both experimental and therapeutic. Lectures, clinics, conferences, discussions and experience with patients. 4 s.h. (w) ASSISTANT PROFESSOR ZUKOWSKI

131N-132N. PSYCHIATRY AND PSYCHIATRIC NURSING.—An advanced study with special emphasis on personality development and the preventive and therapeutic aspects of psychiatry and psychiatric nursing. In the second semester the management of practical situations of increasing complexity is stressed. Lectures, clinics, conferences, discussions and experience with patients. 8 s.h. (w) ASSISTANT PROFESSOR ZUKOWSKI

133N. SEMINAR IN PSYCHIATRIC NURSING.—Special study of areas such as behavior problems of children, projective tests, group therapy, mental hygiene clinics, etc. 3 s.h. (w) ASSISTANT PROFESSOR ZUKOWSKI

134N-135N. ADVANCED MEDICAL AND SURGICAL NURSING.—A study of the medical and surgical aspects of selected diseases, aimed at giving the student a better comprehension of the total care necessary to bring about the best possible results for patients. Lectures, discussions, case histories, and planned observation and experience with patients. 8 s.h. (w) ASSISTANT PROFESSOR INGLES

136N. SEMINAR IN MEDICAL OR SURGICAL SPECIALTY.—Directed study in a selected medical or surgical specialty. Each student works on a problem of major interest to her. Individual research in the collection of original material. 3 s.h. (w) ASSISTANT PROFESSOR INGLES

192N. PRINCIPLES AND METHODS OF TEACHING IN SCHOOLS OF NURSING.—The primary purpose of this course is to help teachers in schools of nursing to understand and to utilize generally accepted principles of learning and to carry out a more effective teaching program in a school of nursing. Instruction is given in the planning of courses, in methods of teaching in classrooms and in hospital divisions, in construction of examinations, and in the utilization of other methods of determining the effectiveness of a teaching program. 3 s.h. ASSISTANT PROFESSOR RAPPAPORT

193N. WARD ADMINISTRATION AND TEACHING.—This course is designed to help head nurses better to understand their functions in planning and managing a program on a hospital division which will result in improved care of patients, greater satisfaction for professional and non-professional personnel, and a more adequate teaching program for students and others. 3 s.h. (w) ASSISTANT PROFESSOR INGLES

195N. PERSONNEL WORK IN SCHOOLS OF NURSING.—The primary purpose of this course is to help head nurses and supervisors to develop greater understanding of the principles of human behavior and greater ability to apply these principles in working with patients and others on hospital divisions, and in establishing cooperative relationships with other departments of the hospital. 3 s.h. (w) ASSISTANT PROFESSOR JOHNSTON

#### DEPARTMENTAL MAJOR

*Major Requirements:* 1. Number of hours needed; 24 hours in the Department. 2. Required courses: 84, 88, 103, 118. 3. Recommended courses: for elementary teachers, Education 101-102, 142. For secondary teachers, Education 115-116 and materials and methods in teaching of related work.

*Related Work:* Sufficient work in subjects to be taught to meet certification requirements in state in which student intends to teach.



MATERIALS AND METHODS COURSES

Certain courses concerned with materials and methods in teaching the various subjects in the public school curriculum are listed in the proper subject matter department. These courses are intended to give credit on teaching certificates and are recommended by the Department of Education for such credit.

ENGLISH

PROFESSOR IRVING, CHAIRMAN; ASSOCIATE PROFESSOR BEVINGTON, DIRECTOR OF UNDERGRADUATE STUDIES; ASSOCIATE PROFESSOR BOWMAN, SUPERVISOR OF FRESHMAN INSTRUCTION; ASSISTANT PROFESSOR HARWELL, ACTING SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSORS BAUM, BLACKBURN, BOYCE, BRINKLEY, GILBERT, GOHDES, HUBBELL, SANDERS, AND WARD; VISITING PROFESSOR ERDMAN; ASSOCIATE PROFESSORS MITCHELL, PATTON, AND REARDON; ASSISTANT PROFESSORS BEVINGTON, BUDD, HARWELL, JORDAN, POTEAT, SCHWERMANN, SUGDEN, WETHERBY, WHITE, AND WILLIAMS; DR. CHURCH, FRASER, REICHARD, AND SMITH; MESSRS. BOWERS, GRAVES, JOHNSON, LANE, LARKIN, MICHALAK, AND SMITH

**L. ENGLISH FUNDAMENTALS.**—All freshmen whose scores on the placement tests indicate that they are not ready for English 1 must take this course. Students who fail in English L must repeat the course. Students who have earned credit in English L must also take English 1 and 2. 3 s.h. (w)

ASSISTANT PROFESSOR JORDAN; MESSRS. BOWERS, JOHNSON, AND LANE

**1-2. ENGLISH COMPOSITION.**—All freshmen are required to take course 1 and course 2. (For exemptions, see Uniform Course Requirements, p. 85.)

Students who fail in English 1 or 2 must repeat the course in the following semester. Students in courses 1 and 2 who fail to make an average of "C" or better are strongly advised to earn credit for an additional course in English composition. 6 s.h. (E & w)

ASSOCIATE PROFESSORS BEVINGTON, BOWMAN, MITCHELL, AND PATTON; ASSISTANT PROFESSORS BEVINGTON, BUDD, HARWELL, JORDAN, POTEAT, SUGDEN, WHITE, AND WILLIAMS; DR. CHURCH, FRASER, REICHARD, AND SMITH; MESSRS. BOWERS, JOHNSON, LANE, LARKIN, AND SMITH

**33. WRITING LABORATORY.**—A non-credit course in elementary composition which may be elected by students who need it, or may be required of certain students under the conditions stated on page 83, "Deficiencies in Composition." Students may enter or leave this course at any time, at the instructor's discretion. (w)

ASSISTANT PROFESSORS HARWELL AND JORDAN

**53. ENGLISH COMPOSITION.**—A course in advanced composition and grammar. Emphasis is placed first on the student's mastering the fundamental principles of English grammar and the other essentials of correct writing. Weekly themes are required. 3 s.h. (w)

ASSISTANT PROFESSOR JORDAN

**65-66. ENGLISH COMPOSITION.**—A foundation course in imaginative writing, both prose and verse. Open to sophomores and in special cases to freshmen. The consent of the instructor is required. 6 s.h. (E)

PROFESSOR SANDERS

**E-93. ADVANCED COMPOSITION FOR ENGINEERS.**—This course concentrates on those forms of writing most needed by men in technical fields, especially engineers. Among other types of writing, it includes business letters, technical reports, and semi-technical articles. Open to non-engineering students only upon consent of the instructor. Prerequisite: English 1 and 2. 3 s.h. (w)

ASSISTANT PROFESSOR HARWELL

**101-102. EXPOSITORY ENGLISH COMPOSITION.**—The course attempts to encourage fluency and accuracy in expository expression. Primarily for juniors and seniors; open also to sophomores approved by the instructor. 6 s.h. (E)

ASSOCIATE PROFESSOR MITCHELL

103-104. ENGLISH COMPOSITION.—A course in descriptive and narrative writing. Class discussion of students' manuscripts, supplemented by a critical evaluation of a few selected short stories and by individual conferences with the instructor. Open to sophomores, juniors, and seniors. The consent of the instructor should be secured as early as possible in the spring semester. Prerequisite for English 104: English 103. 6 s.h. (E) PROFESSOR BLACKBURN

107-108. JOURNALISM.—The first semester is devoted to news-writing and copy-reading; the second semester to the writing of feature articles and editorials. 6 s.h. (w) ASSISTANT PROFESSOR SUGDEN

133. VERSE-WRITING.—The writing and criticism of original verse. Limited to not more than eight students, who must apply in writing to the instructor and submit original verse. Open to seniors, juniors, and exceptional sophomores and freshmen. Once a week, throughout the year. 3 s.h. (E)  
[Not offered in 1953-54]

#### SPEECH AND DRAMA

106. PLAYWRITING.—A study and analysis of the technique of the one-act play. Dramatic writing by the students is discussed in class, with emphasis on the development of individual style. Primarily for juniors and seniors; open also to sophomores approved by the instructor. 6 s.h. (E) ASSOCIATE PROFESSOR REARDON

118. PERSUASIVE SPEAKING.—The psychological and sociological techniques used in gaining acceptance of ideas through speech. Study is made of the factors influencing human behavior; audience analysis and motivation; choice, arrangement, and adaptation of material. Extensive practice in persuasive speaking. Prerequisite: English 151 or consent of the instructor. 3 s.h. (w) ASSISTANT PROFESSOR WETHERBY

119. HISTORY OF THE THEATRE.—The origin and development of drama, acting, and stagecraft from ancient Greece to the modern European and American theatre. Production problems of representative plays of the various periods will be discussed. Primarily for juniors and seniors, open also to sophomores approved by the instructor. 3 s.h. (E) ASSOCIATE PROFESSOR REARDON

121. STAGECRAFT.—An introductory course on the technical aspects of play production: scenery, lighting, properties, make-up, and costuming. Lectures and laboratory. Laboratory work will be coordinated with the various productions of the Duke Players. Primarily for juniors and seniors; open also to sophomores approved by the instructor. 3 s.h. (E)

ASSOCIATE PROFESSOR REARDON; MESSRS. GRAVES AND MICHALAK

122. PLAY PRODUCTION.—An introduction to the methods of producing a play: theatre organization, play selection, casting, and rehearsal. Lectures and laboratory. Primarily for juniors and seniors; open also to sophomores approved by the instructor. 3 s.h. (E) ASSOCIATE PROFESSOR REARDON

139. THE SPEAKING VOICE.—The correction of minor functional speech disorders. The speech organs and their function. The International Phonetic Alphabet and its use. Drill in pronunciation, diction, vocal quality. Primarily for sophomores, juniors, and seniors; also open to freshmen with the consent of the instructor. 3 s.h. (E & w) ASSISTANT PROFESSORS SCHVERMAN AND WETHERBY  
[Offered both semesters]

150. ORAL INTERPRETATION OF LITERATURE.—A study of poetry and certain types of prose, with practice in the technique by which they may be communicated to an audience. 3 s.h. (E) ASSISTANT PROFESSOR SCHVERMAN

151. ESSENTIALS OF PUBLIC SPEAKING.—A basic course in public speaking, designed to give the student the poise and confidence necessary to think and speak freely before an audience. Particular attention is paid to the gathering and organization of speech materials and to oral presentation. 3 s.h. (E & w)

ASSOCIATE PROFESSOR REARDON; ASSISTANT PROFESSORS SCHVERMAN, AND WETHERBY; MESSRS. GRAVES AND MICHALAK

[Offered both semesters]

152. ARGUMENTATION.—The principles of argumentation and debating. The techniques of analysis, investigation, evidence, reasoning, brief making, and refutation. Participation in class discussions and debates. Prerequisite: English 151 or consent of the instructor. 3 s.h. (w) ASSISTANT PROFESSOR WETHERBY  
[Offered in the fall semester]

171, 172. RADIO BROADCASTING.—The theory and practice of radio broadcasting. The purpose, preparation, and production of various types of radio programs. There will be experience before a microphone in a studio situation. Laboratory work both semesters. Primarily for juniors and seniors; open also to sophomores approved by the instructor. 6 s.h. (w) ASSISTANT PROFESSOR WETHERBY

### ENGLISH AND AMERICAN LITERATURE AND LANGUAGE

55, 56. REPRESENTATIVE WRITERS.—The following works are studied in the first semester: Chaucer's Prologue to *The Canterbury Tales* and at least two tales, Shakespeare's *I Henry IV* and *King Lear* and one other play, the English *Bible* (selections), Milton's *Paradise Lost* (selections) and some of the shorter poems; in the second semester: Pope's *Poems* (selections), Smollett's *Humphrey Clinker*, Keats's *Poems and Letters*, Thackeray's *Vanity Fair*, Shaw's *Saint Joan* and *Caesar and Cleopatra*, Yeats's *Collected Poems* (selections), and a twentieth-century novel. 6 s.h. (E & W)

PROFESSORS BLACKBURN, BOYCE, AND SANDERS; ASSOCIATE PROFESSORS BEVINGTON, BOWMAN, MITCHELL, AND PATTON; ASSISTANT PROFESSORS BEVINGTON, POTEAT, SUGDEN, AND WILLIAMS; DRs. CHURCH, FRASER, REICHARD, AND SMITH; MESSRS. BOWERS AND LANE

111, 112. EIGHTEENTH-CENTURY LITERATURE.—A study of the leading English poets, essayists, dramatists, and novelists from Swift to Blake, with the literary and social background. The major writers studied in the first term are Pope, Swift, Fielding, and Thomson; in the second term, Johnson, Goldsmith, Cowper, and Blake. Tests, discussions, and reports on outside readings. 6 s.h. (E)  
PROFESSOR BOYCE

117. MILTON.—Milton's poetry and prose, together with their relation to the period and to other great works of literature. Lectures, discussion, occasional tests, one or two papers. 3 s.h. (E)  
PROFESSOR BRINKLEY

123, 124. SHAKESPEARE.—In the first semester twelve plays, before 1600; in the second semester ten plays, after 1600. Occasional tests and one or two papers. 6 s.h. (E & W)  
PROFESSORS BOYCE AND WARD; ASSOCIATE PROFESSOR BOWMAN; ASSISTANT PROFESSOR WILLIAMS

125, 126. ENGLISH LITERATURE, 1789-1832.—The course begins with selections from the poetry of the forerunners of Romanticism. The chief emphasis in the first semester is on the work of the older Romantics: Wordsworth, Coleridge, Southey, Scott, and Lamb. In the second semester the chief emphasis is on the work of the younger Romantics: Byron, Shelley, Keats, Leigh Hunt, Hazlitt, and DeQuincey. Informal lectures and class discussion of assigned texts. A limited amount of outside reading is required and also some memory work. There are four tests each semester. 6 s.h. (E & W)

ASSOCIATE PROFESSOR PATTON AND ASSISTANT PROFESSOR WHITE

129, 130. ENGLISH NOVEL.—The work of the first semester covers the history of the novel through Scott; that of the second semester, from Dickens through Hardy. Lectures and book reports. 6 s.h. (E)  
ASSOCIATE PROFESSOR MITCHELL

131, 132. ENGLISH LITERATURE, 1832-1900.—A study of the chief English writers of poetry, prose, and drama from Carlyle to Yeats. The major writers studied in the first semester are Carlyle, Tennyson, Browning, Macaulay, Mill, Newman, and Arnold; in the second semester, Ruskin, the Rossetis, Morris, Swinburne, Shaw, and Yeats, with selections from minor writers. Collateral reading from novels of the period. Lectures, discussions, tests, and a term paper. 6 s.h. (E & W)  
PROFESSOR SANDERS AND ASSOCIATE PROFESSOR BEVINGTON

134. CONTEMPORARY POETRY.—A reading course in the poetry of the twentieth century in England, Ireland, and America, beginning with Gerard Manley Hopkins and William Butler Yeats. An anthology of modern poetry is read and discussed, supplemented by the wider reading of individual poets. Informal lectures and discussions with a critical paper for the term. Open to juniors and seniors, and occasionally to sophomores by special permission. 3 h. (E)

ASSISTANT PROFESSOR BEVINGTON

137, 138. AMERICAN LITERATURE.—A survey of American literature from colonial times to the present. Selections from the works of important authors are read, from Cotton Mather to Eugene O'Neill, and complete novels by Hawthorne, Melville, James, Howells, and others. The work of the first semester ends with the Civil War period. Lectures, monthly tests, and a term paper each semester. 6 s.h. (E & w)

PROFESSORS HUBBELL AND GOHDES; ASSISTANT PROFESSOR BUDD

142. MATERIALS AND METHODS OF TEACHING HIGH-SCHOOL ENGLISH.—This course is planned to meet the requirements of the several state departments of education and the regional educational governing bodies, and serves as part of the student's general work in practice teaching. It is required in each of the states certifying college graduates who wish to teach high-school English. 3 s.h. (E)

ASSISTANT PROFESSOR JORDAN

[Offered in the fall semester]

143, 144. ENGLISH LITERATURE: ELIZABETHAN AND EARLY SEVENTEENTH CENTURY.—A study of the prose, poetry, and drama of the period. First semester: the emphasis in prose is on Sidney; in poetry, on Spenser and Shakespeare; in drama, on Marlowe and Jonson. Second semester: the emphasis in prose is on the English Bible, Bacon, Browne; in poetry, on Donne and on the early poems of Milton; in drama, on Webster and Ford. Lectures, tests, and one or two brief papers. 6 s.h. (E)

PROFESSOR BLACKBURN

153, 154. COMPARATIVE LITERATURE.—Important works in European literature are read in translation and related to similar documents in English literature. In the first semester are read: nine Greek tragedies, five of Plato's *Dialogues*, Vergil's *Aeneid*, Dante's *Inferno*, and Cellini's *Autobiography*; in the second semester, Machiavelli, Cervantes, Molière, Voltaire's *Candide*, Goethe's *Faust*, Dostoevski's *The Brothers Karamazov*, Ibsen's plays. Discussions, tests, reports. 6 s.h. (E)

PROFESSOR IRVING

155. MODERN EUROPEAN DRAMA.—The emphasis is on Ibsen, Strindberg, and Chekhov, and on the Free Theatre movements. Some quite recent plays will also be studied. 3 s.h. (E)

ASSISTANT PROFESSOR WHITE

156. MODERN BRITISH AND AMERICAN DRAMA.—Types of drama are studied in relation to European origins and to contemporary scene. The students subscribe to *Theatre Arts*. 3 s.h. (E)

ASSISTANT PROFESSOR WHITE

158. CONTEMPORARY FICTION.—Wide reading in twentieth-century novelists, with special attention to innovations in form and technique. Lectures, discussions, and weekly critical reports. 3 s.h. (w)

160. ENGLISH LITERARY BIOGRAPHY.—A reading course in great biographies. Studied are works of Plutarch, Walton, Johnson, Southey, Lockhart, Henry Adams, and Strachey. Lectures, discussions, reports, tests. 3 s.h. (w)

PROFESSOR SANDERS

161, 162. MODERN ENGLISH AND ITS BACKGROUNDS.—An elementary historical and descriptive study of the English language: patterns of change and growth, standards of usage and pronunciation. Some attention is given to the methods of linguistic inquiry and to the relations of philology to literary studies. The first semester is devoted chiefly to a historical study of written and spoken English, the second to a description of modern American English. Lectures, discussions, and short reports. 6 s.h.

165. AMERICAN FICTION.—A survey of fiction in America from its beginnings to 1870, with emphasis on the development of the short story. Lectures, discussions, and frequent written reports. 3 s.h. (w)

ASSISTANT PROFESSOR BUDD



166. AMERICAN FICTION.—A survey of fiction in America from 1870 to the present, with emphasis on the local color movement and the rise of realism. Lectures, discussions, and frequent written reports. 3 s.h. (w)

ASSISTANT PROFESSOR BUDD

FOR SENIORS AND GRADUATES

201-202. ANGLO-SAXON.—In the first semester, an introduction to the language, with the reading of selected prose and of some of the shorter poems; in the second semester, the *Beowulf*. 6 s.h. (w)

PROFESSOR BAUM

[Not offered in 1953-54]

203-204. CHAUCER.—Reading and interpretation of the text: in the first semester the principal *Canterbury Tales*; in the second, the *Troilus* and the minor poems. A reading report and a term paper. 6 s.h. (w)

PROFESSOR BAUM

205-206. MIDDLE ENGLISH.—Close study of selected texts, with attention to the development of the language and to the history of the literature from 1200 to 1400. A term paper each semester. 6 s.h. (w)

PROFESSOR BAUM

215-216. ELIZABETHAN DRAMA.—Careful study of one or two major dramatists (Jonson or Beaumont and Fletcher) and extensive reading in the other writers (Heywood, Ford, Massinger, Marlowe, Middleton) with emphasis on the nature and qualities of their work in relation to its historical background. Exposition of plays, reports, and a term paper each semester. 6 s.h. (w)

PROFESSOR GILBERT

217. MILTON.—Milton's poetry and prose, with emphasis on the major poems. 3 s.h. (w)

PROFESSOR GILBERT

218. SPENSER.—The reading of Spenser's works, with chief attention to *The Faerie Queene*. 3 s.h. (w)

PROFESSOR GILBERT

[Not offered in 1953-54]

219-220. THE EIGHTEENTH CENTURY.—Swift, Pope, Defoe, Addison, Steele, and others are studied in the first semester; in the second, Gray, Johnson, Boswell, Goldsmith, the letter writers, and the early Romantic poets. Lectures, oral reports, and a term paper each semester. 6 s.h. (w)

PROFESSOR IRVING

221-222. ENGLISH LITERATURE OF THE EARLY NINETEENTH CENTURY.—A survey of the principal writers and literary monuments from 1798 to 1830; in the first semester chiefly Wordsworth, Coleridge, and Lamb; in the second, Shelley, Byron, Keats, and Hazlitt. Occasional lectures, frequent classroom discussions of reading assignments, written and oral reports, and a term paper each semester. 6 s.h. (w)

VISITING PROFESSOR ERDMAN

223-224. ENGLISH LITERATURE OF THE LATER NINETEENTH CENTURY.—Some of the most important works of the period are discussed in class; the background is filled in by lectures and assigned reading. The first semester is devoted chiefly to Carlyle, Dickens, Thackeray, Tennyson, and Browning; the second semester to Arnold, Ruskin, Pater, George Eliot, Meredith, the Pre-Raphaelites, and Swinburne. A term paper each semester. 6 s.h. (w)

[Not offered in 1953-54]

PROFESSOR BAUM

227. LITERARY CRITICISM.—A study of the Greek and Roman critics, in chronological order but with emphasis on their permanent value rather than on the mere history; also the Continental and English critics to about 1700. Lectures, reports, and a term paper. 3 s.h. (w)

PROFESSOR GILBERT

229-230. AMERICAN LITERATURE, 1800-1870.—The writers emphasized in the first semester are Emerson, Thoreau, and Hawthorne; in the second semester, Poe and Melville. In the first semester some attention is given also to Edwards, Franklin, Bryant, Longfellow, Holmes, Whittier, Lowell, and Parkman; and in the second semester, to Byrd, Jefferson, Paine, Freneau, Brown, Irving, Cooper, Kennedy, Simms, Timrod, and Lincoln. An oral report and a term paper in the first semester. 6 s.h. (E)

PROFESSOR HUBBELL

232. WHITMAN.—A detailed study of *Leaves of Grass* and of selected prose works. One test and one term paper. 3 s.h. (E)

PROFESSOR GOHDES

[Offered in the fall semester]



233-234. AMERICAN LITERATURE SINCE 1870.—Selected works of the chief writers of the period, including Whitman, Lanier, Mark Twain, James, Howells, Emily Dickinson, Crane, Dreiser, and others. The lectures deal with the social background and with the careers of the leading authors. One test and one term paper each semester. 6 s.h. (E) PROFESSOR GOHDES

237. ENGLISH DRAMA, 1642-1800.—The Heroic Play and the Comedy of Manners of the Restoration period; and the important plays, serious and comic, of the eighteenth century. Lectures, class discussions, and short reports. 3 s.h. (w) [Not offered in 1953-54] ASSOCIATE PROFESSOR WARD

239. SHAKESPEARE.—A study of the plays and poems, with attention to sources, earlier criticism, and the work of Shakespeare's contemporaries. 3 s.h. (w) [Not offered in 1953-54] PROFESSOR GILBERT

241. STUDIES IN DRYDEN.—A detailed study of the poet's non-dramatic work. Lectures on the political, religious, and literary background. A term report. 3 s.h. (w) [Not offered in 1953-54] ASSOCIATE PROFESSOR WARD

245. THE EIGHTEENTH-CENTURY NOVEL.—Richardson, Fielding, Smollett, and Sterne are emphasized. Some attention is given to earlier prose fiction and to other contributing literary patterns. Lectures and short papers. 3 s.h. (w) [Offered in the spring semester] PROFESSOR BOYCE

251-252. ENGLISH LITERATURE IN THE SEVENTEENTH CENTURY.—A survey course. The major works in prose, poetry, and drama from 1600 to the death of Dryden. Lectures, reports, and term papers. 6 s.h. (w) ASSOCIATE PROFESSOR WARD

269-270. SOUTHERN LITERATURE.—The principal writers discussed during the first semester are Byrd, Jefferson, Wirt, Kennedy, the Cooke brothers, Legaré, Simms, Timrod, Hayne, Longstreet and other humorists, and the poets of the Civil War. Considerable attention is paid to the historical and cultural background and to Northern and British authors who wrote about the South. An oral report and a term paper are required each semester. 6 s.h. (w) [269 offered in the second semester] PROFESSOR HUBBELL

#### DEPARTMENTAL MAJOR

*Prerequisite:* English 1 and 2.

*Major Requirements:* Twenty-four semester hours in English and American literature including the following:

1. Six hours in English 55-56.
2. Six hours in one of five designated period courses (143-144, 111-112, 125-126, 131-132, 137-138).
3. Three hours in one of the major authors, Chaucer, Shakespeare, or Milton (203-204, 123, 124, 117).
4. Nine hours, distributed as follows:
  - (a) Three hours of English literature before 1800. Students who have chosen 143-144 or 111-112 for the period course may substitute any three-hour course approved by their adviser.
  - (b) Three hours of English literature after 1800. Students who have chosen 125-126 or 131-132 for the period course may substitute any three-hour course approved by their adviser.
  - (c) Three hours of American literature. Students who have chosen 137-138 for the period course may substitute any three-hour course approved by their adviser.

*Related work:* Eighteen semester hours, which may include appropriate courses in history, aesthetics, art, music, languages, literature in translation, philosophy, or courses in composition, dramatics, and speech. Related work must be taken in at least two departments.

*Electives:* Students may use 12 hours of their free electives for additional work in English and American literature. The maximum credit in such courses may not exceed 36 hours. A total of 54 semester hours' credit in the department is allowed. Students who are looking forward to graduate work should take as many of the period courses as possible. No more than five seniors may be admitted to any course on the 200 level.

## FORESTRY

Students without a Bachelor's degree who are preparing for work in forestry as a profession should take the courses outlined under the Academic-Forestry Combination (see pages 95-96). However, with the consent of the instructor in charge, certain forestry courses may be elected by students in other curricula provided they have had adequate preparation (see *Bulletin of the School of Forestry*).

Members of the sophomore, junior, and senior classes, whether or not registered in the Academic-Forestry Combination, may elect the following course:

52. PRINCIPLES OF FORESTRY.—An introductory study of the American forestry movement; economic and social value of forests in the national economy; principal forest regions and timber trees in the United States; regeneration, treatment, protection, and management of forests as permanent crops; organization and activities of existing forestry agencies. 2 s.h. (w) ASSISTANT PROFESSOR STOLTENBERG

## GEOLOGY

PROFESSOR BERRY, CHAIRMAN, DIRECTOR OF UNDERGRADUATE STUDIES AND SUPERVISOR OF FRESHMAN INSTRUCTION; MESSRS. BOWMAN, BUCKNER, AND HERON

51. GENERAL GEOLOGY.—This course is designed to give a general view of the surface features of the earth, their origin, structure, and materials. Illustrative materials are studied in the laboratory. Excursions are made to neighboring points where the principles of the science are studied in the field. Three one-hour lectures or recitations and one three-hour laboratory. 4 s.h. (E)

MR. HERON AND STAFF

52. GENERAL GEOLOGY.—This course is designed to give some knowledge of the chief events of the earth's history. Excursions will be made to suitable neighboring localities. Three one-hour lectures or recitations and one three-hour laboratory. Prerequisite: Geology 51. 4 s.h. (E)

MR. HERON AND STAFF

55. STRUCTURAL GEOLOGY.—A study of the structural features of the earth's crust. Three one-hour lectures. Prerequisite: Geology 51, 52. 3 s.h. (E)

MR. HERON

58. GEOMORPHOLOGY.—A detailed study of the process at work on the land surface and the topographic forms produced by them under different climatic conditions. This course includes practice in the interpretation of topographic maps. Three one-hour lectures or recitations and one three-hour laboratory. 4 s.h. (E)

PROFESSOR BERRY

101-102. MINERALOGY.—This course is devoted to a study of the fundamentals of crystallography and the crystal groups, using crystal models and crystallized minerals. Followed by the systematic study of about 175 important minerals. Determinative work includes exercises on sight recognition, identification by blow-pipe, and other physical and chemical tests. Excursions will be made to neighboring mineral localities. Three two-hour periods. Prerequisite: Chemistry 1-2 (can be taken concurrently). 8 s.h. (E)

PROFESSOR BERRY

151. ECONOMIC GEOLOGY.—Study of world distribution, geologic occurrence, and uses of important mineral deposits. Three one-hour lectures or recitations and one three-hour laboratory. Prerequisite: Geology 101-102. 4 s.h. (E)

PROFESSOR BERRY

152. **INTRODUCTORY PALEONTOLOGY.**—Systematic study of invertebrate paleontology, dealing mainly with generic characters of the fossil invertebrates and their use in identifying and correlating geologic formations. Three one-hour lectures or recitations and one three-hour laboratory. Prerequisites: Geology 51, 52, and Zoology 2. 4 s.h. (E) PROFESSOR BERRY

164. **INTRODUCTION TO GEOLOGIC MAPPING.**—An introduction to the fundamental principles and techniques used in geologic mapping, including applicable methods of surveying, the use of aerial photographs, the interpretation of geologic maps, and the solution of problems in geologic relationships. Field excursions will be made when possible. Two hours of lecture and three hours of laboratory each week. Prerequisites: Geology 51, 52, 55, 151. 3 s.h. (E)

MR. HERON

#### DEPARTMENTAL MAJOR

*Prerequisites:* Chemistry 1-2; Zoology 2, Geology 51, 52.

*Major Requirements:* 1. Number of hours needed, 30 s.h. 2. Required courses, Geology 55, 101-102, 151, 152, 164. 3. Recommended courses, Geology 58.

*Related Work:* 1. Number of hours needed for A.B., 12 s.h.; for B.S., 18 s.h. 2. Required courses, 1 year Mathematics. 3. Departments in which related work is usually taken, Chemistry, Economics 115-116, Mathematics, Physics, Sociology 111, Zoology, and General Engineering.

#### GERMANIC LANGUAGES AND LITERATURE

PROFESSOR VOLLMER, CHAIRMAN; ASSOCIATE PROFESSOR MAXWELL, DIRECTOR OF UNDERGRADUATE STUDIES; ASSOCIATE PROFESSOR WILSON, SUPERVISOR OF FRESHMAN INSTRUCTION; ASSOCIATE PROFESSOR SHEARS; MR. YATES

*All courses except Elementary and Intermediate German may be taken for one semester only, when circumstances make it advisable.*

1-2. **ELEMENTARY GERMAN.**—6 s.h. (E & W)

ASSOCIATE PROFESSOR MAXWELL AND STAFF

3-4. **INTERMEDIATE GERMAN.**—6 s.h. (E & W)

ASSOCIATE PROFESSOR WILSON AND STAFF

51-52. **INTRODUCTION TO GERMAN LITERATURE.**—A third year course. Both literary and linguistic factors are combined with practice in the spoken language. 6 s.h. (w)

ASSOCIATE PROFESSOR SHEARS AND STAFF

*For courses in the 100 and 200 group which will be offered in 1952-53, please consult list furnished by Dean's office before registration.*

107, 108. **SCIENTIFIC GERMAN.**—The German language as used in the various contemporary sciences. 6 s.h. (w) ASSOCIATE PROFESSORS MAXWELL AND WILSON

109, 110. **GERMAN PROSE FICTION.**—Origin and development of the German novel with special emphasis on the nineteenth century. 6 s.h.

ASSOCIATE PROFESSOR WILSON

111, 112. **INTRODUCTION TO THE CLASSIC DRAMA.**—Selected dramas from Lessing, Goethe, and Schiller. 6 s.h.

ASSOCIATE PROFESSOR WILSON

115, 116. **GERMAN DRAMA OF THE NINETEENTH CENTURY.**—A study of leading dramatists from Kleist to Hauptmann. 6 s.h. ASSOCIATE PROFESSOR WILSON

117, 118. **GERMAN CONVERSATION.**—A course in writing and speaking German for properly qualified students. 6 s.h.

PROFESSOR VOLLMER; ASSOCIATE PROFESSORS MAXWELL AND SHEARS

119, 120. **GERMAN LITERATURE IN ENGLISH TRANSLATION.**—The great epochs in German literature studied through English translations. 6 s.h. (w)

PROFESSOR VOLLMER

121, 122. SCHILLER.—A study of his life and works in relation to the culture of the eighteenth century. 6 s.h. ASSOCIATE PROFESSOR MAXWELL

123, 124. MODERN GERMAN SHORT STORY.—Development and technique of the Novelle. 6 s.h. ASSOCIATE PROFESSOR SHEARS

125, 126. CONTEMPORARY GERMAN LITERATURE.—A study of representative works of the twentieth century. 6 s.h. ASSOCIATE PROFESSOR SHEARS

127, 128. SURVEY OF MODERN GERMAN LITERATURE.—Excerpts from novels, poems and short stories illustrating the development of modern German literature are read. 6 s.h. PROFESSOR VOLLMEYER

131, 132. INTRODUCTION TO GOETHE.—The reading of his early novels and epics and works pertaining to his life. 6 s.h. ASSOCIATE PROFESSOR MAXWELL

201, 202. GOETHE.—A study of Goethe's life and works, with special emphasis upon the broader aspects of his ever-widening interests and literary activities. 6 s.h.

203, 204. EIGHTEENTH CENTURY.—Eighteenth-century German literature in its relation to contemporary European philosophy. 6 s.h. (w) PROFESSOR VOLLMEYER

205, 206. MIDDLE HIGH GERMAN.—The language and literature of Germany's first classical period. 6 s.h. PROFESSOR VOLLMEYER

207, 208. GERMAN ROMANTICISM.—The course covers the entire field of German romanticism from 1800 to 1850. 6 s.h. (w) PROFESSOR VOLLMEYER

209, 210. KLEIST, GRILLPARZER, AND HEBBEL.—The dramatic development in Germany after Schiller. 6 s.h. (w)

211, 212. HEINRICH HEINE AND HIS TIME.—Heine's life and thought, and the contemporary European culture. 6 s.h. (w) PROFESSOR VOLLMEYER

213, 214. LITERATURE OF THE EMPIRE, 1871-1914.—A study of the literature of this period with emphasis on a few leading writers. 6 s.h. (w)

ASSOCIATE PROFESSOR SHEARS

### DEPARTMENTAL MAJOR

1. *Prerequisites:* German 1-2 and 3-4.

2. *Major Requirements:* Twenty-four semester hours in the German Department. Twelve of these must be selected from the 200 courses. The remaining twelve may be selected from German 51-52 and any courses in the 100 group except 119-120.

3. *Related Work:* Eighteen semester hours, chosen from the Humanities with the approval of the German Department.

### GOVERNMENT

See courses listed under Political Science.

### GREEK

ASSOCIATE PROFESSOR TRUESDALE, DIRECTOR OF UNDERGRADUATE STUDIES; ASSOCIATE PROFESSOR ROSE, SUPERVISOR OF FRESHMAN INSTRUCTION; ASSISTANT PROFESSOR WAY

Courses 15, 121, 122, 131, 141, 142 are entirely in English and require no knowledge of the Greek language. The purpose in offering them is to give a wider circle of students some conception of the debt which modern civilization owes to the Greeks.

1-2. COURSE FOR BEGINNERS.—Open to all students. 6 s.h. (w)  
ASSOCIATE PROFESSOR TRUESDALE

15. MYTHOLOGY.—A study of Greek mythology and the use made of it in art and English literature. No knowledge of the Greek language is required. Open to freshmen as an elective in either semester. 3 s.h. (w & e)

ASSOCIATE PROFESSOR TRUESDALE AND  
ASSISTANT PROFESSOR WAY

53-54. XENOPHON.—*Anabasis*, Books I-IV. Open to students who have completed course 1-2. 6 s.h. (w)

ASSOCIATE PROFESSOR ROSE

105-106. HOMER.—*Iliad*, Books I-III. PLATO.—*Apology* and *Crito*. Open to students who have completed courses 1-2 and 53-54 or their equivalents. 6 s.h. (w)

ASSOCIATE PROFESSOR TRUESDALE

107-108. EURIPIDES.—*Medea*. SOPHOCLES.—*Oedipus Tyrannus*. ARISTOPHANES.—*Clouds*. Open to students who have completed the required preliminary work. 6 s.h. (w)

ASSISTANT PROFESSOR WAY

115-116. SIGHT READING IN GREEK.—Three hours per week through the year. 4 s.h. (w)

ASSOCIATE PROFESSOR TRUESDALE

117-118. GREEK PROSE COMPOSITION.—The character of this course is determined by the needs of the students enrolled. 3 s.h. (w)

ASSOCIATE PROFESSOR ROSE

121, 122. GREEK LITERATURE IN ENGLISH TRANSLATION.—The purpose of this course is to give a general survey of the life and civilization of the Greeks, especially to those who have never studied the language but wish to become acquainted with some of the choicest portions of the literature by the use of translations. It is, however, open as an elective to all juniors and seniors, whether they know Greek or not. First, the *Iliad* and the *Odyssey* are read in translation and illustrated with stereopticon views of the excavations and discoveries at Troy and other cities of the Aegean age; then, many of the extant plays of the three great tragic poets are studied in English translation. 6 s.h. (w & e)

ASSOCIATE PROFESSORS ROSE AND TRUESDALE

*Students may elect course 122, whether they have taken course 121 or not.*

131. HISTORY OF GREECE.—The history of the Greek world from the Late Bronze Age to the Macedonian conquest. Open to seniors, juniors, and (by arrangement) sophomores. No knowledge of Greek is required. 3 s.h. (e)

ASSISTANT PROFESSOR WAY

141, 142. GREEK ART.—(May be treated as two semester-courses). Open to seniors, juniors, and sophomores. A comprehensive survey of the development of Greek architecture and Greek sculpture in all periods. Course 141 is opened by a preliminary account of Egyptian, Mesopotamian, and Aegean artistic backgrounds. Course 142 is devoted chiefly to Greek art of the greatest period with the main emphasis on sculpture, and may be elected independently of course 141. All lectures are fully illustrated by slides. No knowledge of Greek is required. 6 s.h. (e)

ASSISTANT PROFESSOR WAY

201-202. GREEK TRAGEDY.—6 s.h. (w)

ASSOCIATE PROFESSOR TRUESDALE

203-204. HOMER.—*Odyssey*. PINDAR AND BACCHYLIDES. 6 s.h. (w)

ASSOCIATE PROFESSOR TRUESDALE

207-208. GREEK ORATORS.—Selected speeches. 6 s.h. (w)

ASSISTANT PROFESSOR WAY

209-210. PLATO.—*Symposium*, *Protagoras*, and parts of the *Republic*. 6 s.h. (w)

ASSISTANT PROFESSOR WAY

*Only one of the year-courses for seniors and graduates (201-210), listed above, is offered each year.*



243. ATHENIAN TOPOGRAPHY.—The topography and monuments of ancient Athens. 3 s.h. (w) ASSISTANT PROFESSOR WAY

244. GREEK EPIGRAPHY.—Lectures on the history of the alphabet and the development of the local Greek alphabets, followed by extensive reading of inscriptions in facsimile. 3 s.h. (w) ASSISTANT PROFESSOR WAY

245. GREEK DIALECTS.—A linguistic study of transliterated inscriptions illustrative of the major Greek dialects. The interrelations of the dialectal forms are examined with reference, where possible, to their origin in protohellenic Greek. 3 s.h. (w) ASSISTANT PROFESSOR WAY

246. GREEK HISTORICAL INSCRIPTIONS.—The more valuable historical inscriptions are read in chronological order and interpreted in their general bearing upon the course of Greek history. 3 s.h. (w) ASSISTANT PROFESSOR WAY

247-248. GREEK ARCHAEOLOGY.—Advanced course in the general field for seniors and graduates, comprising architecture, sculpture, vases, and the minor arts. 6 s.h. (w) ASSISTANT PROFESSOR WAY

*Of the courses numbered from 243 to 248 only two semester-courses are offered each year.*

#### DEPARTMENTAL MAJOR

*Prerequisite:* Greek 1-2.

*Major Requirements:* A candidate for a major in Greek must complete 24 semester hours, including the following courses: Greek 53-54, 105-106, 107-108, 117-118, and 131.

*Related Work:* Eighteen semester hours selected from at least two other departments subject to the approval of the Greek Department. Appropriate courses are chosen usually in Latin, Philosophy, Art, and English.

*Graduates of Duke University may attend the American School of Classical Studies at Athens, Greece, without charge for tuition and are eligible to compete for the fellowships that are offered annually by the School. These consist of two fellowships in Greek archaeology and one in the language, literature, and history of ancient Greece, each with a stipend of \$2,000. They are awarded mainly on the basis of examinations held in the beginning of February of each year.*

## HEALTH AND PHYSICAL EDUCATION

### TRINITY COLLEGE AND THE COLLEGE OF ENGINEERING

MR. CAMERON, DIRECTOR; PROFESSOR AYCOCK, DIRECTOR OF UNDERGRADUATE STUDIES AND SUPERVISOR OF FRESHMAN INSTRUCTION; ASSISTANT PROFESSORS BLY, FALCONE, HARRISON, MONTFORT, AND PERSONS; MESSRS. BRADLEY, COX, HENDRIX, AND SORESENSEN

#### REQUIRED PHYSICAL EDUCATION FOR MEN

A student must complete four semesters of physical education in order to fulfill graduation requirements.

All students are given a medical and physical examination before registration. Students who have physical handicaps must register in Corrective Physical Education. Students assigned to these classes will take work suited to their particular needs and capacities.

Students without defects will register in Physical Education 1 and 2 in their freshman year. The activities are selected from the following: Apparatus, combative games (fundamentals of basketball, soccer, volleyball), swimming and tumbling. Swimming is required each semester of freshman year.

After a student has completed Physical Education 1 and 2, he may complete his physical education requirement by electing and satisfactorily completing two courses from the following individual and team sports: 51. Apparatus-Tumbling; 52. Badminton; 53. Basketball-Handball; 54. Boxing-Wrestling; 55. Lacrosse-Soccer; 56. Swimming, advanced; 57. Tennis-Volleyball; 58. Golf.

For information concerning gymnasium uniforms see page 186.

## ELECTIVES IN PHYSICAL EDUCATION

Students in the High School Teaching Program may elect 15 semester hours from courses in physical education. Six semester hours may be elected from the courses listed under Special Methods in Physical Education and 9 semester hours may be elected from the courses listed under Theory and Practice in Physical Education.

These courses are arranged to meet the increasing demand for teachers who are qualified to coach and teach physical education. They should be selected with the advice of the Director of Undergraduate Studies in order to meet the needs of the individual.

## SPECIAL METHODS IN PHYSICAL EDUCATION

163. ATHLETIC COACHING IN SECONDARY SCHOOLS.—Theory and practice in the fundamentals of coaching baseball and track. Prerequisites: courses 1 and 2. Open to juniors and seniors. Sophomores by permission only. 3 s.h. (w)

MESSRS. CHAMBERS AND PARKER

164. ATHLETIC COACHING IN SECONDARY SCHOOLS.—Theory and practice in the fundamentals of coaching football and basketball. Prerequisites: courses 1 and 2. Open to juniors and seniors. Sophomores by permission only. 3 s.h. (w)

MR. CAMERON AND STAFF

## THEORY AND PRACTICE IN PHYSICAL EDUCATION

65. HISTORY AND PRINCIPLES OF PHYSICAL EDUCATION.—A study of the objectives and principles upon which physical education is based. The history of physical education is studied in order to show the changes in objectives, principles, and methods and as an aid in the interpretation of trends. Open to sophomores, juniors, and seniors. 3 s.h. (w)

PROFESSOR AYCOCK

172. RECREATIONAL LEADERSHIP.—Combative contests, games, mass athletics, supervision of community recreation. Open to juniors and seniors. Sophomores by permission only. 3 s.h. (w)

ASSISTANT PROFESSOR HARRISON

173. INDIVIDUAL GYMNASTICS.—The diagnosis of abnormal cases, including overweight, underweight, post-operative, postural, and flat-foot cases, with the prescription of exercise for their correction. Open to juniors and seniors. Sophomores by permission only. 3 s.h. (w)

PROFESSOR AYCOCK

182. THE ADMINISTRATION OF HEALTH AND PHYSICAL EDUCATION IN SECONDARY SCHOOLS.—Presents the everyday problems that arise in the experience of the teacher of health and physical education. Open to juniors and seniors. 3 s.h. (w)

ASSISTANT PROFESSOR HARRISON

187. SCHOOL PROGRAMS OF PHYSICAL EDUCATION.—Open to juniors and seniors. 3 s.h. (w)

ASSISTANT PROFESSOR HARRISON

190. PROTECTIVE PRACTICES IN PHYSICAL EDUCATION.—A study of safety measures including training and first aid. Open to juniors and seniors. 3 s.h. (w)

MR. CHAMBERS AND ASSISTANT PROFESSOR MONTFORT

## HEALTH EDUCATION

132. SCHOOL HEALTH PROBLEMS.—A course designed (a) to familiarize the teacher with school health problems such as physical screening, communicable disease prevention and control, healthful school environment; (b) to present methods and materials for health teaching in elementary and secondary schools. 3 s.h. (w)

PROFESSOR AYCOCK

## WOMAN'S COLLEGE

PROFESSOR GROUT, CHAIRMAN AND DIRECTOR OF UNDERGRADUATE STUDIES; ASSOCIATE PROFESSOR BOOKHOUT, SUPERVISOR OF FRESHMAN INSTRUCTION IN PHYSICAL EDUCATION; ASSISTANT PROFESSOR UHRHANE, SUPERVISOR OF FRESHMAN INSTRUCTION IN HEALTH EDUCATION; ASSOCIATE PROFESSOR LEWIS; ASSISTANT PROFESSORS EDDY AND HOLTON; MISS DAVIS, MISS RIEBEL AND MISS WILLIAMS

## REQUIRED PHYSICAL EDUCATION FOR WOMEN

Four semester hours of physical education, to be completed in six semesters, are included in the 124 hours required for graduation.

Every student must take one semester ( $\frac{1}{2}$  s.h.) of each of the following types of activity: individual or dual sport, dance, and swimming (if she is unable to pass the swimming test). The remaining work necessary to complete the requirement may be elected from the activities listed in this section. All required work should be completed by the end of the junior year.

All students are given a physical and medical examination upon entering and at intervals throughout their college course. Classes in individual physical education and light sports are arranged for those who should not take the more active work.

For information concerning gymnasium costumes see page 186.

### SPECIAL FRESHMAN PHYSICAL EDUCATION

At the beginning of the freshman year, after a series of tests has been given, individual conferences are held and each student is guided into the type of activity she most needs, as determined from the evaluation of the test scores and the results of the conference. This course continues for half the semester after which all freshmen take orientation, body mechanics and social hygiene for the remainder of the semester.

In the Woman's College the three-year requirement is met as follows:

#### FRESHMAN YEAR

FRESHMAN ACTIVITIES.—First semester.  $\frac{1}{2}$  s.h. Second semester 1 s.h.

PHYSICAL EDUCATION 1, ORIENTATION, BODY MECHANICS, AND SOCIAL HYGIENE.—First semester.  $\frac{1}{2}$  s.h.

#### SOPHOMORE YEAR

PHYSICAL EDUCATION ACTIVITIES.—1 s.h.

#### JUNIOR YEAR

PHYSICAL EDUCATION ACTIVITIES.—1 s.h.

### PHYSICAL EDUCATION ACTIVITIES

Individual and dual sports: Archery, badminton, bowling, diving, fencing, golf, life saving, light sports, riding, stunts and tumbling, swimming, tennis, first aid. Team sports: Basketball, hockey, softball, volleyball.

Rhythmic Activities: Ballroom dance, folk dance, fundamental movement, fundamental rhythms, modern dance, square dance, tap dance.

Developmental Activities: Body mechanics, individual physical education, motor skills, posture.

### PHYSICAL EDUCATION THEORY

Students preparing to teach physical education and health on a full-time or part-time basis may receive academic credit for all courses listed below. Course 107 is also open to students preparing for social group work and religious education.

Students in the Elementary School Teaching Program must take Physical Education 102 and Health Education 112.

All students may receive credit for Physical Education 105-106, 108, 114, and Health Education 41 and 62.

91. FIRST AID AND SAFETY IN PHYSICAL EDUCATION.—A study of measures which must be taken in the organization and teaching of physical education to insure maximum safety. The Standard Red Cross First Aid Course will be included. 2 s.h. (E)

ASSOCIATE PROFESSOR BOOKHOUT

101. HISTORY AND PRINCIPLES OF PHYSICAL EDUCATION.—An historical survey of physical education stressing the relationship between the types of activity developed and the social and political ideals of different nations and periods. A study of the principles upon which physical education is based. Analysis of successful teaching in physical education. 2 s.h. (E)

PROFESSOR GROUT

102. THE TEACHING OF PHYSICAL EDUCATION IN ELEMENTARY SCHOOLS.—A study of methods and materials used in teaching physical education to children; includes discussion on the theory of physical education, and practice in teaching elementary school activities. Required of students in the elementary school teaching program. 3 s.h. (E) ASSOCIATE PROFESSOR LEWIS

103. GAMES AND RHYTHMS FOR CHILDREN.—Required of students preparing for full-time teaching of physical education. 2 s.h. (E)

ASSOCIATE PROFESSOR LEWIS

[Offered every other year alternating with P.E. 107.]

105-106. METHODS AND MATERIALS IN RECREATION.—A course intended to familiarize students with recreation activities and methods of organizing groups in these activities. Laboratory work includes practical leadership experience with a recreational club or group in a city organization. General fields covered are: Social Activities, Music Activities, Folk and Square Dancing, Games and Sports, Arts and Crafts, Drama Activities, Outing Activities. Open to juniors and seniors without prerequisite. A year course meeting five periods per week throughout the year. 6 s.h. (E) ASSISTANT PROFESSOR HOLTON

107. THE TEACHING OF RHYTHMIC ACTIVITIES.—Basic theory and practice in the methods of teaching various types of dance activities. 2 s.h. (E)

[Offered every other year alternating with P.E. 103.] MISS WILLIAMS

108. PROBLEMS IN COMMUNITY RECREATION.—A study of the historical development of organized recreation; recent trends and theories in recreation; qualifications and preparation for leadership; recreational interest of different age groups; the administration of playgrounds and community centers, including the study of local and state recreation departments. Open to juniors and seniors without prerequisite. 3 s.h. (E)

[Not offered in 1953-54]

113. MAMMALIAN ANATOMY.—A study of all organ systems with special emphasis on osteology, arthrology and myology. The cat will serve as laboratory animal, but constant application to man will be made. Prerequisite: Zoology 1 and 2. 4 s.h. (E) ASSOCIATE PROFESSOR BOOKHOUT

114. KINESIOLOGY.—A study of muscle function. Analysis of fundamental movements with emphasis on the development of normal posture and efficient body movement. Required of students taking the major in physical education. Prerequisites: Zoology 1 and 2, and P.E. 113 or Zoology 53. 3 s.h. (E) (Not open to students who have had P.E. 116.) ASSOCIATE PROFESSOR BOOKHOUT

116. KINESIOLOGY.—A study of muscle function. Analysis of human motion as a basis for therapeutic exercise. Prerequisite: Human Anatomy. 3 s.h. (w) (Not open to students who have had P.E. 114.) ASSOCIATE PROFESSOR BOOKHOUT

117. BODY MECHANICS AND INDIVIDUAL PHYSICAL EDUCATION.—A study of the fundamentals of body movement and teaching methods for courses in body mechanics. An analysis of faulty postures for which individual physical education procedures are indicated. 3 s.h. (E) ASSOCIATE PROFESSOR BOOKHOUT

119. ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION.—Curriculum building in physical education. A study of facilities including plans and equipment for gymnasias and playgrounds. Administrative problems of the high-school teacher and public school supervisor. 2 s.h. (E) PROFESSOR GROUT

120. EVALUATION AND MEASUREMENT IN PHYSICAL EDUCATION.—History of evaluation and measurement in physical education. Elementary statistics and application of statistical procedure in testing. Familiarity with athletic achievement tests for elementary and secondary schools, and with testing of sport techniques, rhythm, and general qualities of motor ability, motor capacity, and motor educability. 2 s.h. (E) MISS RIEBEL

181-182. METHODS AND MATERIALS IN PHYSICAL EDUCATION.—A course in the theory and practice of teaching and officiating in games and sports. Laboratory hours arranged to provide practice on the field and in the gymnasium. 4 s.h. (E) ASSOCIATE PROFESSOR LEWIS AND STAFF



185-186. **ADVANCED METHODS AND MATERIALS IN PHYSICAL EDUCATION.**—A continuation of 181-182. Required of seniors preparing for full-time teaching in physical education. 4 s.h. (E) ASSOCIATE PROFESSOR LEWIS AND STAFF

### HEALTH EDUCATION

41. **PERSONAL HEALTH.**—This course is designed to present basic health information to the student as an individual and also from the point of view of her relation to the social group in which she lives. The emphasis is on the individual as a dynamic, functioning personality, rather than as an anatomical structure. Either semester. 3 s.h. (E) ASSISTANT PROFESSOR UHRHANE

62. **COMMUNITY HEALTH PROBLEMS.**—This course includes problems of health in community living such as environmental health hazards and their control, health problems specific to certain groups, and the place and contribution of official and non-official public health agencies. Emphasis is placed on the responsibility of each community member to recognize problems and to work together toward the goal of a mentally, physically and socially healthful community. 3 s.h. (E) ASSISTANT PROFESSOR UHRHANE

111-112. **SCHOOL HEALTH.**—This course is designed to meet the needs of the classroom teacher in terms of the responsibility of the school for the health of the children. It deals with the organization and administration of the school health program; with modern principles of education as applied to health education; and with basic problems of health confronting the schools. The course also includes methods and materials for teaching health education; home, school and community relationships in health education; and curriculum development. Primarily designed for students preparing to teach in elementary schools and for physical education majors. 6 s.h. (E) ASSISTANT PROFESSOR UHRHANE

NOTE: 111 does not carry credit without 112. 112 may be taken without 111.

### REQUIREMENTS FOR TEACHING HEALTH AND PHYSICAL EDUCATION IN PUBLIC SCHOOLS

The following requirements have been set up for students in the Teaching Program who wish to qualify as full-time or part-time teachers of Health and Physical Education. These requirements meet the standards of the North Carolina Department of Public Instruction for certification in Health and Physical Education and of most of the other states represented in the student body. Students preparing to teach in any state are advised to consult the department about specific requirements.

*Prerequisites:* Physical Education 91 and 101; Health Education 111 or 41; Zoology 1-2.

*Major Requirements:* 23 s.h. including Physical Education 103, 107, 114, 117, 119, 181-182, 185-186, and Health Education 112.

*Recommended Course:* Physical Education 120.

*Related Work:* 17 to 19 s.h. Of these hours 8 must be in anatomy and physiology (P.E. 113, Mammalian Anatomy and Zoology 151, Principles of Physiology). Of the remaining hours work done in Department of Education leading to teacher certification is acceptable. Courses in Chemistry, Zoology, Sociology, Psychology, Art and Music are recommended.

### HISTORY

PROFESSOR SYDNOR, CHAIRMAN; PROFESSOR HAMILTON, DIRECTOR OF UNDERGRADUATE STUDIES; ASSOCIATE PROFESSOR FERGUSON, SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSORS CARROLL, CLYDE, CURTISS, LANNING, AND MANCHESTER; ASSOCIATE PROFESSORS NELSON, PARKER, ROPP, WATSON, AND WOODY; ASSISTANT PROFESSORS ACOMB, COLTON, HOLLEY, AND STEVENS; DR. DECONDE, DR. DURDEN, AND MR. OLIVER

The undergraduate courses in history are designed to afford (1) an introduction to the study of history by a consideration of the history of the modern world; (2) a more intensive study of general American history; (3) opportunities for more ad-



vanced study of phases of American, English, European, Hispanic-American, Russian, and Eastern history which interest the teachers and students.

Courses 1-2 or 51-52 or E1-2 or an equivalent is a prerequisite for all other courses; course E1-2 is the prescribed course for students in the College of Engineering; courses 91 and 92 are prerequisite for all 100 and 200 courses in United States history. However, seniors with written permission from the instructor may take courses without the prerequisites. Sophomores who took only one semester of course 1-2 in the freshman year may be admitted to courses 91 and 92, 63, or 67-68, provided they made a grade of B or above on the semester taken. Courses offered for seniors and graduates are limited to twenty-five students; juniors may not elect them without special permission from the Department and the Executive Committee of the Graduate Faculty. Sophomores must obtain permission of the instructor in order to be admitted to courses numbered above 100; students who are not fully qualified sophomores will not be admitted to these courses.

**1, 2. HISTORICAL BACKGROUND OF THE WORLD TODAY.**—This course is an introduction to the study of modern history with special reference to the issues in the modern world. Topics selected for emphasis are: the contest between liberty and authority in the modern state; changing economic organization and theory—capitalism and the challenges to it; the problems of peace and war among the states; the changing faiths men live and die by. Beginning about 1500 with the rise of the European dynastic states, the story is pursued in the first semester to approximately 1871, and in the second through the two great world wars. The central theme in both semesters is the expansion of the influence of Western Europe throughout the world, with some attention to the rise of the United States as a world power. 6 s.h. (W & E)

Sophomores and juniors are not admitted to this course. One semester of the course may be counted as a general elective but not as fulfilling the minimum uniform requirements or, except as provided above, as a basis of further work in history. PROFESSOR HAMILTON; ASSOCIATE PROFESSORS FERGUSON, PARKER, AND ROPP; ASSISTANT PROFESSORS ACOMB AND COLTON; DR. DURDEN

**E1-2. THE UNITED STATES IN THE WORLD TODAY.**—This course is designed for students in the College of Engineering. Topics treated in the first semester are: the rise of national states in Western Europe and other factors attending the discovery and settlement of the New World; the foundation of American institutions; the establishment of the Federal Republic; the frontier, the westward movement, and contemporary international development; the Civil War; the growth of industry and its influence on society; the Spanish-American War and the emergence of the United States as a world power. In the second semester the emphasis is on the growing interdependence of the Western nations in the twentieth century; their influence throughout the world; the participation of the United States in the World Wars and the resultant problems of today. 6 s.h. (W)

ASSISTANT PROFESSOR HOLLEY

**51, 52. HISTORICAL BACKGROUND OF THE WORLD TODAY.**—An introductory course for sophomores, juniors, and seniors dealing with the topics indicated in the description of course 1-2. 6 s.h. (W & E)

PROFESSOR CURTISS; ASSOCIATE PROFESSOR ROPP; ASSISTANT PROFESSORS ACOMB AND COLTON; DR. DURDEN; MR. OLIVER

[Not open to freshmen or to students who have had course 1-2.]

**63. NAVAL HISTORY AND ELEMENTARY STRATEGY.**—After a review of earlier periods, attention is given to the rise of sea-power and its importance in more recent times and to naval actions, especially in the two World Wars. This course is not open to students who have had N.S.101. 3 s.h. (W)

ASSOCIATE PROFESSOR ROPP

**67-68. THE BACKGROUND OF MODERN EUROPEAN CIVILIZATION.**—The course deals primarily with the intellectual-cultural history of the peoples of Europe and adjacent areas from the period of the earliest written records to the formation of the European states-system (c. 1648). The work aims to develop critical appreciation and maturity of judgment in historical interpretation through the use of original sources 6 s.h.

ASSOCIATE PROFESSOR NELSON

91. THE DEVELOPMENT OF AMERICAN DEMOCRACY TO 1865.—This course is a study of trends vital to an understanding of the United States today. The main theme is the development of American democracy. Problems of foreign policy, the growth of capitalism, political practices, social behavior, and conflicting ideals are considered in relation to this main theme. 3 s.h. (w & e)

ASSOCIATE PROFESSOR WATSON; ASSISTANT PROFESSORS  
STEVENS AND HOLLEY

92. THE DEVELOPMENT OF AMERICAN DEMOCRACY, 1865 TO THE PRESENT.—A continuation of History 91 with emphasis upon the emergence of contemporary problems. 3 s.h. (w & e)

ASSOCIATE PROFESSOR WATSON; ASSISTANT PROFESSORS  
STEVENS AND HOLLEY

Courses 91 and 92 are intended both to serve as continuation courses in the study of history and to afford the student an opportunity to gain the understanding of the past of the United States essential for intelligent citizenship. These courses are prerequisite for all 100 and 200 courses in United States history. However, seniors with written permission from the instructor may take these courses without the prerequisites.

105-106. POLITICAL AND CONSTITUTIONAL HISTORY OF ENGLAND.—The origins and evolution of the principal institutions of the English government, related to their setting in a changing society. 6 s.h. (w) PROFESSOR HAMILTON

*Students who have had course 123-124 may not receive credit for this course.*

107-108. SOCIAL AND CULTURAL HISTORY OF ENGLAND.—A study of English history from the fourteenth century to the present time in an effort to arrive at a synthesis of social and political events and thus provide a background for the study of English literature. Emphasis is placed on the ages of Chaucer, Shakespeare, and Milton; the eighteenth and early nineteenth centuries; the reign of Victoria and the twentieth century. 6 s.h. (e) ASSOCIATE PROFESSOR FERGUSON

*Sophomores who made an average grade of B or above on course 1-2 may be admitted to this course.*

113-114. AMERICA IN THE TWENTIETH CENTURY.—A historical survey of political, economic, and social problems of twentieth-century United States. Emphasis is placed on reform movements from the Muckrakers through the New Deal, the emergence of the United States as a world power, and conflicting ideas and ideologies. 6 s.h. (w) ASSOCIATE PROFESSOR WATSON

115-116. THE AGE OF ABSOLUTE MONARCHY AND THE FRENCH REVOLUTION.—The study in the first semester deals primarily with the political and social institutions of Western Europe in the seventeenth and eighteenth centuries, including such topics as the absolute monarchy in theory and practice, the peasants, the nobles, commercial and industrial classes, the Church. The study in the second semester includes the old regime in France, the French Revolution, and Napoleonic institutions in Western Europe. 6 s.h. (e) ASSISTANT PROFESSOR ACOMB

119-120. THE HISTORY OF THE LABOR MOVEMENT IN EUROPE.—The origins, growth, and organization of the industrial working classes of Europe from early modern times to the present. This course deals with the history of the organized labor movement in England, France, Germany, Italy, and the Scandinavian countries in relation to political and economic developments in those countries. Emphasis is placed on the rise of trade unions, the emergence of working class political parties, the influence of revolutionary and reformist theories, and the role of international labor organizations. 6 s.h. (w) ASSISTANT PROFESSOR COLTON

121-122. THE FOREIGN RELATIONS OF THE UNITED STATES.—This course is designed to acquaint the student with the historical development of ideas and movements that have shaped American attitudes toward the outside world and to provide an historical introduction to the formal conduct of diplomacy. 6 s.h. (w)

DR. DECONDE

127. HISTORY OF LATIN AMERICA THROUGH THE FORMATION OF THE NATIONAL GOVERNMENTS.—3 s.h. (w) PROFESSOR LANNING

128. INTER-AMERICAN AFFAIRS.—This course treats the relations of the Latin-American states with each other and with the United States with the design of explaining the current significance of Latin America. Chief emphasis is placed upon social problems and movements common to all the republics and upon the role of the United States in Latin-American affairs, including such topics as American intervention; contributions of the United States to Latin-American life in such matters as public health; Pan-Americanism; Pan-Hispanism; foreign penetration and ideologies; the cultural and commercial aspects of the Good Neighbor Policy; Latin-American states in the World War. 3 s.h. (w) PROFESSOR LANNING

ANCIENT HISTORY.—GREEK 131—LATIN 131-132.—See Departments of Greek, Latin and Roman Studies. These courses do not count toward a major in history. (w)

135-136. EUROPE IN THE TWENTIETH CENTURY.—The work in the first semester deals with the period before 1920, including such topics as international relations at the beginning of the twentieth century, the rise of German naval power, the Triple Alliance and the Triple Entente, the economic interdependence of the world, the Turkish Revolution, the Turco-Italian War and the Balkan wars, the first World War, and its immediate aftermath. In the second semester such topics are treated as the rise of totalitarian states, the disruption of world trade, and the second World War. 6 s.h. (w) PROFESSOR CARROLL

141-142. THE FAR EAST FROM COMMODORE PERRY TO CHIANG KAI-SHEK.—Historical interpretations of the role of Eastern Asia in the recent World War with attention to such topics as Western imperialism in China and Japan in the nineteenth century; the rise of Japan as a military and industrial power; the emergence of militant Chinese nationalism; the fusion of the Far Eastern and the European wars into a world conflict; the rise of Chinese communism. 6 s.h. (w) PROFESSOR CLYDE

[Not offered in 1953-54]

153-154. THE HISTORY OF THE SOUTH.—A study, beginning in the Colonial period, of the development of the Southern part of the United States with particular attention to its distinctive characteristics and institutions and to their influence in shaping Southern attitudes toward major questions of national policy. 6 s.h. (w) PROFESSOR SYDNOR

[Not offered in 1953-54]

161-162. RUSSIA FROM IVAN THE TERRIBLE TO STALIN.—Topics treated include the rise of the Russian state and its relations with Poland and Turkey; the agrarian problem and the rise of industry; the Russian Revolution; the political, agricultural, and industrial policies of the Soviet Union; the role of the U.S.S.R. in World War II; and its postwar policies. 6 s.h. (w) PROFESSOR CURTIS

#### FOR SENIORS AND GRADUATES

203-204. THE UNITED STATES, 1850-1900.—The rise of sectionalism, secession, war-time problems of the Union and Confederacy, political and economic adjustments of Reconstruction, the status of the Negro, the New South, problems of capital and labor, the agrarian revolt, political parties and reform, the Spanish-American War. 6 s.h. (w) ASSOCIATE PROFESSOR WOODY

205-206. THE UNITED STATES IN THE TWENTIETH CENTURY.—The emergence of the United States as a major power: attention is focused on domestic developments and conflicting theories of expansion of federal power. Emphasis in the first semester is on the Progressive era and the first World War; the second semester is devoted to the twenties and to the Franklin Roosevelt administration. 6 s.h. (w) ASSOCIATE PROFESSOR WATSON

209-210. CONSTITUTIONAL HISTORY OF THE UNITED STATES, 1760 TO THE PRESENT.—A study of the basic problems in forming the Constitution; of its development through the major crises in the history of the United States; of the effects of changing social, cultural, economic, and political conditions on the Constitution. 6 s.h. (w) ASSISTANT PROFESSOR STEVENS

215-216. THE FOREIGN POLICY AND DIPLOMACY OF THE UNITED STATES.—The work in the first semester, covering the period 1775-1877, deals with such topics as the origin and development of basic foreign policies; isolation from Europe; paramount interests in Latin America, including the Monroe Doctrine; international co-operation in the Far East. The work in the second semester, covering the period since 1877, deals with topics such as the rise of the new "manifest destiny"; beginnings of American imperialism in Latin America and the Far East; the failure of traditional neutrality in the first World War; postwar conflicts between isolation and collective security; involvement in the second World War. 3 s.h. (w)

PROFESSOR CLYDE

[Not offered in 1953-54]

217-218. EUROPE SINCE 1870.—International relations since the Franco-German War is the chief subject of study in this course; special emphasis is placed upon the underlying economic and political influences. 6 s.h. (w)

PROFESSOR CARROLL

221-222. THE AGE OF THE RENAISSANCE.—The decline of characteristic features of medieval civilization and the rise of modern European institutions with particular attention to intellectual movements from Dante to Erasmus. 6 s.h. (E)

ASSOCIATE PROFESSOR NELSON

225-226. THE AGE OF THE REFORMATION.—A survey of European civilization from 1500 through the Peace of Westphalia. 6 s.h. (E)

[Not offered in 1953-54]

ASSOCIATE PROFESSOR NELSON

227-228. EUROPE IN THE NINETEENTH CENTURY.—A study, beginning with the career of Napoleon Bonaparte, of the forces and personalities influential in the nineteenth century. Emphasis in the first semester is on the problems of the biographer; in the second, on those of a student of national communities. 6 s.h.

ASSOCIATE PROFESSOR PARKER

[Not offered in 1953-54]

230. THE PORTUGUESE EMPIRE AND THE RISE OF BRAZIL.—The course deals with Portuguese explorations, the establishment of the Portuguese Empire in the East, the transplanting of Portuguese culture overseas, and the rise of a native Brazilian civilization. 3 s.h. (w)

PROFESSOR MANCHESTER

231-232. THE HISPANIC COLONIES AND REPUBLICS IN AMERICA.—The development of the Iberian states as colonizing powers, the conquest of America, the Spanish treatment of the Indian, the contest between Spain and other European nations over America, the independence movement, the struggle for stable government, the rise of liberalism with special emphasis upon Mexico from the Revolution of 1910 to the present, and basic inter-American developments. 6 s.h.

(w)

PROFESSOR LANNING

233-234. THE INSTITUTIONAL, CULTURAL, AND SOCIAL HISTORY OF HISPANIC AMERICA.—The first semester of this course deals with subject races, the development of mixed breeds, the governmental system, the Church and the Inquisition, and Spanish culture with emphasis upon university subjects. In the second semester the work deals with the political ideas of the wars of independence, revolution and dictatorship, the rise of public education, public health, land reform, and proletarian movements. 6 s.h. (w)

PROFESSOR LANNING

[Not offered in 1953-54]

241-242. THE FAR EAST.—The history of the Western impact on Eastern Asia in the nineteenth and twentieth centuries. Emphasis is placed on such matters as commercial and colonial expansion, the opening of China and Japan, the development by the Western Powers and Japan of colonial, imperialistic, and nationalistic interests, and the rise of Communist power in Asia. 6 s.h. (w)

[Not offered in 1953-54]

PROFESSOR CLYDE

243-244. THE UNITED STATES AND THE FAR EAST.—An historical analysis of American relations with the peoples of Eastern Asia during the nineteenth and twentieth centuries. 6 s.h. (w)

PROFESSOR CLYDE



245-246. WAR IN THE MODERN WORLD.—This course is concerned with the relations between warfare and modern political, economic, and social conditions. Special attention is given to the development of British and American military methods and to the events of the American Civil War and the two World Wars. The work in the first semester deals with Clausewitz's theories of warfare and the period from the introduction of gunpowder to 1871; in the second semester there is a more detailed analysis of recent land, sea, and air warfare. 6 s.h. (w)  
ASSOCIATE PROFESSOR ROPP

261-262. RUSSIA IN THE TWENTIETH CENTURY.—A study of the background of the Revolution of 1917 followed by an analysis of the history and policies of the Soviet state. 6 s.h. (w)  
PROFESSOR CURTISS

263-264. AMERICAN COLONIAL HISTORY AND THE REVOLUTION, 1606-1783.—The growth of institutions and economic life in the English colonies and the American Revolution. 6 s.h. (w)  
ASSOCIATE PROFESSOR WOODY  
[Not offered in 1953-54]

267-268. THE TRANSITION FROM MEDIEVAL TO MODERN ENGLAND.—A study of the changes in English society and ideas from the time of Edward III to that of Elizabeth. 6 s.h. (F)  
ASSOCIATE PROFESSOR FERGUSON

269-270. ENGLISH HISTORY FROM THE TUDOR PERIOD TOWARD THE PRESENT.—Emphasis is on political and governmental leaders, events, and institutions in selected periods and on the underlying forces that shaped them. 6 s.h. (w)  
PROFESSOR HAMILTON

#### DEPARTMENTAL MAJOR

*Prerequisites:* The Introductory Course in History (1-2 or 51-52).

*Major Requirements:* Students desiring to take a major in history are required to elect 24 semester hours in the Department, including six semester hours in the senior year from courses in the 200 group. Students desiring to take the more advanced courses in American history should elect courses 91 and 92 in the sophomore or junior year.

#### COURSES APPROVED FOR RELATED WORK IN HISTORY

The number of courses refer to the descriptions in the 1950-51 catalog.

Aesthetics

History of Art

History of Music

Economics, but *not* the courses listed under business administration except those in economic geography

Education, 84, 105, 206, 214, 225, 253, 264

English and American Literature, but *not* composition, speech, and drama

German, Greek, Latin, Russian, and the Romance Languages: the literature courses numbered 100 or above that are not primarily conversation or composition courses

Philosophy, except 48

Political Science

Psychology, 206 only

Religion courses approved to satisfy the requirement in religion for graduation

Sociology courses in group I, II, 243, 246; Group IV, V.

#### LATIN AND ROMAN STUDIES

PROFESSOR ROGERS, CHAIRMAN AND DIRECTOR OF UNDERGRADUATE STUDIES; ASSOCIATE PROFESSOR ROSE, SUPERVISOR OF FRESHMAN INSTRUCTION; MR. DELHOMME

Students who wish by study in English to make acquaintance with Roman antiquity from either a literary or an historical approach are afforded that opportunity through the courses in translated Latin Literature (111, 112), and Roman History (131, 132). Work is offered in several branches of Roman Studies: Latin Language and Literature, Roman Art and Archaeology, Roman History, Roman Law.



1-2. COURSE FOR BEGINNERS.—Forms, vocabulary, pronunciation and syntax are emphasized the first semester. They are followed by the reading and translating of Caesar's *Gallie War* the second semester. An effort is made to promote rapid development of ability to read easy Latin with satisfaction. 6 s.h. (w)

MR. DELHOMME

3. CICERO'S ORATIONS.—Four orations including the *Manilian Law* and *Archias* are read, and attention is paid to prose style. Prerequisite: two entrance units of Latin. 3 s.h. (E)

MR. DELHOMME

4. VERGIL'S *AENEID*.—Selections from Books I-VI, to the amount of four books or more, will be read and translated, due attention being paid to prosody. 3 s.h. (E)

MR. DELHOMME

51. LATIN PROSE.—Selections from prose authors or Cicero's *De Senectute* and *De Amicitia*, or selected books of Livy's history, with special emphasis on developing competence in reading Latin. 3 s.h. (E)

THE STAFF

52. LATIN POETRY.—Selections from the greatest Latin poets, especially Horace's Odes. 3 s.h. (E)

THE STAFF

57. SIGHT READING IN CLASSICAL LATIN.—One period of an hour per week devoted to practice in the reading of Latin of the classical period; designed to train students to read with facility. 1 s.h. (E)

ASSOCIATE PROFESSOR ROSE

58. SIGHT READING IN MEDIAEVAL LATIN.—One period of an hour per week devoted to reading interesting mediaeval prose and poetry. Prerequisite: at least one of the following courses: Latin 3, 4, 51, 52, and 57, or an equivalent. 1 s.h. (E)

ASSOCIATE PROFESSOR ROSE

65-66. LATIN PROSE COMPOSITION.—Recommended to students who are pursuing course 3-4, 57, and 51-52, and may at the discretion of the instructor be required of such students. 4 s.h. (E)

ASSOCIATE PROFESSOR ROSE

101. TACITUS.—Interesting and historically important selections from the *Annals* or the *Histories* of Tacitus are read, with attention to the literary style and the value of the historical narrative. 3 s.h. (E)

PROFESSOR ROGERS

102. JUVENAL.—Juvenal's literary satire forms the basis of the course. 3 s.h. (E)

PROFESSOR ROGERS

103. CICERO.—Selections from one of the major philosophical works, with attention to Cicero's philosophical thought and literary style. 3 s.h. (E)

PROFESSOR ROGERS OR ASSOCIATE PROFESSOR ROSE

104. LUCRETIUS.—A study of Lucretius as a philosophical thinker and as a poetic artist. 3 s.h. (E)

PROFESSOR ROGERS OR ASSOCIATE PROFESSOR ROSE

109. MATERIALS AND METHODS.—A study of Latin in the secondary school curriculum for prospective teachers of Latin in high schools. Prerequisite: eighteen approved semester hours of college Latin, including courses 51-52, or equivalent courses. Required of students who plan to teach Latin in state high schools. 3 s.h. (E)

ASSOCIATE PROFESSOR ROSE

111, 112. ROMAN LITERATURE IN ENGLISH TRANSLATION.—Selective readings in Latin Literature in English translation with emphasis on the drama, lyric poetry, and the varied contributions of Cicero to literature in the first term, and upon the epic, the satire, and the novel in the second semester. (No language credit.) 6 s.h. (E)

ASSOCIATE PROFESSOR ROSE

113-114. ROMAN CIVILIZATION.

115-116. ART AND ARCHITECTURE OF ANCIENT ROME.

131, 132. HISTORY OF ROME.—A survey of the history of the Roman State from its beginnings to the death of Justinian; its expansion; development of its constitution and public administration; social, legal, political and economic problems of perennial life and interest; the background and setting of Christianity's rise and growth. (This course carries no language credit. No knowledge of Latin is required for admission.) 6 s.h. (E)

PROFESSOR ROGERS

203-204. ROMAN EPIC: ENNIUS, VERGIL, MANILIUS, LUCAN, FLACCUS, STATIUS, SILIUS.—A study of this literary genre, and its development by Roman writers; extensive reading of the Roman epics. Not offered if 205-206 is given. 6 s.h. (E)

205-206. ROMAN DRAMA.—Select comedies of Plautus and Terence; select tragedies of Seneca. Rapid reading course. 6 s.h. (E)

207-208. ROMAN PHILOSOPHY.

209-210. VULGAR LATIN: INTRODUCTION TO ROMANCE PHILOLOGY.

211-212. ROMAN ORATORY.—A reading course in the history and development of Roman oratory, based for the most part on Cicero's *Brutus* and the *Dialogus* of Tacitus. 6 s.h. (E) PROFESSOR ROGERS

215. ROMAN ART AND ARCHAEOLOGY.

216. TOPOGRAPHY AND MONUMENTS OF ANCIENT ROME.

### DEPARTMENTAL MAJOR

*Prerequisite:* Latin 1-2, 3-4, or equivalent.

*Major Requirements:* 24 semester hours which must include courses 51-52, 101-102, 103-104, and 6 semester hours in courses at the 200-level.

*Recommended Courses:* Latin 65-66, Composition, and 131-132, Roman History.

*Related Work:* Eighteen hours of related work, elected usually in Greek, Philosophy, Art, Romance Languages, and English. Majors who contemplate graduate work are reminded of the necessity of Greek, German, and French for such study.

### MATHEMATICS

PROFESSOR GERGEN, CHAIRMAN; PROFESSOR DRESSEL, DIRECTOR OF UNDERGRADUATE STUDIES; ASSISTANT PROFESSOR HICKSON, SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSORS CARLITZ, ELLIOTT, ROBERTS, AND THOMAS; ASSISTANT PROFESSOR PATTERSON; DRs. ESTILL, GORDON, AND SHOENFIELD; MRS. MERZBACHER, MR. HODGES, MISS ISAACS, MESSRS. SMYTHE, WYLIE, AND ASSISTANTS

The following program of courses in Mathematics is planned for 1953-54. Fall: 1, 5, 6, 50, 51, 52, 53, 123, 131, 139, 229, 235, 271, 285, 291. Spring: 1, 5, 6, 16, 50, 51, 52, 53, 124, 131, 140, 160, 204, 230, 236, 272, 286, 292.

1. INTERMEDIATE ALGEBRA.—Elementary topics, factoring, fractions, linear equations in one, two, and three unknowns, functions and graphs, exponents and radicals, elements of quadratic equations. Prerequisite: one unit in algebra and one unit in geometry. 3 s.h. (W & E) STAFF

5. COLLEGE ALGEBRA.—Advanced topics in quadratic equations, systems involving quadratics, variation, binomial theorem, progressions, inequalities, theory of equations, determinants, partial fractions, probability. This course and Mathematics 6 may be taken concurrently. Prerequisite: Mathematics 1, or one and one-half units in algebra and one unit in geometry. 3 s.h. (W & E) STAFF

6. PLANE TRIGONOMETRY.—Logarithms, right and oblique triangles, radian measure, graphs of trigonometric functions, inverse trigonometric functions, trigonometric identities and equations. This course and Mathematics 5 may be taken concurrently. Prerequisite: Mathematics 1, or one and one-half units in algebra and one unit in geometry. 3 s.h. (W & E) STAFF

15. SPHERICAL GEOMETRY AND TRIGONOMETRY.—Geometric properties of the sphere, theory and computation for spherical triangles, applications to navigation and astronomy. Prerequisite: Mathematics 5 and 6. 3 s.h. (W) STAFF

16. MATHEMATICS OF INVESTMENT.—Simple and compound interest, annuities certain, amortization, sinking funds, depreciation, evaluation of bonds, life insurance. Prerequisite: Mathematics 5. 3 s.h. (W) STAFF

50. PLANE ANALYTIC GEOMETRY.—Rectangular and polar coordinates, loci, straight lines, conic sections. This course and Mathematics 51 may be taken concurrently. Prerequisite: Mathematics 5 and 6. 3 s.h. (W) STAFF

51. CALCULUS I.—Differentiation of elementary functions, curve tracing, maxima and minima, motion, curvature, indeterminate forms. Prerequisite: must be preceded or accompanied by Mathematics 50. 3 s.h. (w) STAFF

52. CALCULUS II.—Integration of elementary functions, areas, solids of revolution, length of arc, surfaces of revolution, centroids, moments of inertia, pressure. Prerequisite: Mathematics 51. 3 s.h. (w) STAFF

53. CALCULUS III.—Introduction to solid analytic geometry, partial differentiation, multiple integrals, series, introduction to differential equations. Prerequisite: Mathematics 52. 3 s.h. (w) STAFF

123. HIGHER ALGEBRA.—The number system, mathematical induction, inequalities, series, recurring series, continued fractions, recurring continued fractions, summation of series, probability. Offered in alternate years. Prerequisite: Mathematics 52, or permission of the instructor. 3 s.h. (w) ASSISTANT PROFESSOR HICKSON

124. STATISTICS.—Averages, moments, dispersion, skewness, kurtosis, correlation, types of distributions, curve fitting, graduation of data to type curves, sampling theory. Offered in alternate years. Prerequisite: Mathematics 53. 3 s.h. (w) ASSISTANT PROFESSOR HICKSON

125. ELEMENTARY THEORY OF EQUATIONS.—Permutations, determinants, matrices, linear systems, polynomials and their roots, constructibility, resultants, discriminants, simultaneous equations. Offered in alternate years. Prerequisite: Mathematics 53. 3 s.h. (w) STAFF

131. ELEMENTARY DIFFERENTIAL EQUATIONS.—Solution of differential equations of elementary types; formation and integration of equations arising in applications. Prerequisite: Mathematics 52. 3 s.h. (w) STAFF

139-140. ADVANCED CALCULUS.—Multiple integrals, series, Taylor's theorem, partial differentiation, improper integrals, line integrals, Green's theorem, complex numbers. Prerequisite: Mathematics 53. 6 s.h. (w) PROFESSOR ELLIOTT

158. FINITE DIFFERENCES.—Operators, interpolation formulas for equal and unequal intervals, inverse interpolation, summation, differential and difference operators, approximate integration. Offered in alternate years. Prerequisite: Mathematics 52. 3 s.h. (w) ASSISTANT PROFESSOR HICKSON

160. ELEMENTARY SOLID ANALYTIC GEOMETRY.—Planes, straight lines, quadric surfaces. Offered in alternate years. Prerequisite: Mathematics 53. 3 s.h. STAFF

175. PROBABILITY.—Permutations and combinations, total and compound probability, Bayes' theorem, Bernoulli's theorem, mathematical expectation, applications. Offered in alternate years. Prerequisite: Mathematics 52. 3 s.h. (w) ASSISTANT PROFESSOR HICKSON

#### FOR SENIORS AND GRADUATES

201. HISTORY OF MATHEMATICS.—Evolution of the number system, arithmetic, geometry, algebra, trigonometry, analytic geometry, calculus, and modern geometry. Brief sketches of mathematicians. Prerequisite: Mathematics 51. 3 s.h.

204. TEACHING OF MATHEMATICS.—Fundamental processes, methods of study, mathematical literature, content of courses, applications, use of instruments, correlation of different branches, historical development of secondary school mathematics. Offered in alternate years. Prerequisite: must be preceded or accompanied by Mathematics 52. 3 s.h.

226. GALOIS THEORY OF EQUATIONS.—Permutation groups, group of an equation, solvability by radicals. Prerequisite: Mathematics 53. 3 s.h. (w) PROFESSOR THOMAS

227-228. THEORY OF NUMBERS.—Congruences, arithmetic functions, compound moduli, quadratic reciprocity, Gauss sums, quadratic forms, sums of squares. Prerequisite: Mathematics 53. 6 s.h. (w) PROFESSOR CARLITZ

229-230. ALGEBRAIC NUMBERS.—Ideals, unique factorization, divisors of the discriminant, determination of the class number. Prerequisite: Mathematics 125. 6 s.h. (w) PROFESSOR CARLITZ

235-236. ABSTRACT ALGEBRA.—Groups, fields, rings, matrices, quadratic and bilinear forms, general Galois theory, hypercomplex systems. Prerequisite: Mathematics 53. 6 s.h. (w) PROFESSOR CARLITZ

247-248. ARITHMETIC OF POLYNOMIALS.—Field theory, detailed study of finite fields, special polynomials and functions, valuation theory, the zeta function. Prerequisite: Mathematics 235, or consent of the instructor. 6 s.h. (w) PROFESSOR CARLITZ

250. HIGHER GEOMETRY.—Properties of the triangle, transversals, harmonic properties of figures, poles, polars, inversions. 3 s.h. (w) PROFESSOR THOMAS

253-254. DIFFERENTIAL GEOMETRY.—Curves and surfaces in three dimensional Euclidean Space, applicability, differential parameters, Riemannian geometry of  $n$ -space. Prerequisite: Mathematics 53. 6 s.h. (w) PROFESSOR THOMAS

255-256. PROJECTIVE GEOMETRY.—Postulational, synthetic treatment centering around Desargues' theorem and the principle of projectivity. Conics, coordinates, order, continuity, metric properties. Prerequisite: Mathematics 53. 6 s.h. (w) PROFESSOR THOMAS

271-272. INTRODUCTORY TOPOLOGY.—Topological properties of Euclidean spaces, set-theoretic and combinatorial methods. Prerequisite: Mathematics 53. 6 s.h. (w) PROFESSOR ROBERTS

285. MATHEMATICAL ANALYSIS FOR CHEMISTS AND PHYSICISTS.—Vectors, line and surface integrals, tensors, complex variables, differential and integral equations. Prerequisite: Mathematics 53. 3 s.h. (w) PROFESSOR DRESSEL

286. MATHEMATICAL ANALYSIS FOR CHEMISTS AND PHYSICISTS.—Wave equation, Fourier series, heat equation, telegraphic equations, Legendre polynomials, Bessel functions, Schrödinger's equation. Prerequisite: Mathematics 53. 3 s.h. (w) PROFESSOR DRESSEL

291-292. THEORY OF FUNCTIONS.—Limits, implicit functions, power series, double series, Cauchy's theorem and its applications, residues, Riemann surfaces, conformal mapping. Prerequisite: Mathematics 53. 6 s.h. (w) PROFESSOR THOMAS

#### DEPARTMENTAL MAJOR

For the A.B. degree:

*Prerequisite:* Mathematics 5 and 6.

*Major and Related Work:* 42 semester hours.

*Major Requirements:* Mathematics 50, 51, 52, 53, and 12 semester hours in courses in Mathematics numbered above 100, exclusive of Mathematics 201, 204.

*Related Work:* 18-24 semester hours of course work, ordinarily in the following departments: chemistry, economics and business administration, philosophy, physics.

For the B.S. degree:

*Prerequisite:* Mathematics 5 and 6.

*Major and Related Work:* 48 semester hours.

*Major Requirements:* Mathematics 50, 51, 52, 53, and 12 semester hours in courses in mathematics numbered above 100, exclusive of Mathematics 201, 204.

*Related Work:* 14-24 semester hours of course work in the natural sciences.

#### MEDICAL SCIENCE

These courses in medical science have been approved by the Faculty Council as appropriate for the Bachelor's degree.

103. HUMAN PHYSIOLOGY.—A course in human physiology in which the functions of all organ systems are covered. Special emphasis is given to the study



of neuro-muscular and cardiovascular functions. Lectures, laboratory experiments and demonstrations, and conferences. Limited to sixteen students. Primarily for physical therapy students. Prerequisites: Chemistry 1-2 and Zoology 1-2. 6 s.h.

ASSOCIATE PROFESSOR MCCREA AND STAFF

109. ANATOMY RELATED TO MOTION.—A course in human anatomy in which the dissection is restricted to the muscles, bone, and joints, and to the circulatory and nervous systems as they are related to movement. Lectures and laboratory. Prerequisite: Zoology 1-2. 8 s.h. PROFESSOR MARKEE AND STAFF

## NAVAL SCIENCE

PROFESSOR OCKER, CAPTAIN, U. S. NAVY, CHAIRMAN; ASSOCIATE PROFESSOR HARRELL, COMMANDER, U. S. NAVY, DIRECTOR OF UNDERGRADUATE STUDIES; ASSISTANT PROFESSOR OSTROM, LIEUTENANT COMMANDER, U. S. NAVY, SUPERVISOR OF FRESHMAN INSTRUCTION; ASSISTANT PROFESSORS KENNEDY, KUBISZEWSKI, AND WILSON, LIEUTENANTS, U. S. NAVY; AND ASSISTANT PROFESSOR READ, MAJOR, U. S. MARINE CORPS

Standardized titles and numbers for courses are established by the Bureau of Naval Personnel for use at the 52 NROTC institutions. The first digit indicates the year of the course; the second digit indicates whether semester or quarter (0 for semester, 1 for quarter); the third digit indicates the semester or quarter of school year in which offered. Specialized courses for Marine Corps officer candidates are indicated by the letter "M" after the number, and substitute for the basic course of the same number.

NS-101. NAVAL HISTORY AND ORIENTATION.—Naval courtesy and customs; history of sea power; the elements of sea power; applications of sea power in campaigns of the two World Wars; organization for national security in the United States. 3 s.h. (w) CAPTAIN OCKER, LIEUTENANT COMMANDER OSTROM

NS-102. NAVAL HISTORY AND ORIENTATION.—Uniform code of military justice; deck seamanship; rules of the nautical road; naval formations and maneuvers; basic characteristics, capabilities, and limitations of naval vessel types; nomenclature; introduction to carrier air, surface, undersea, and amphibious warfare. 3 s.h. (w) CAPTAIN OCKER, LIEUTENANT COMMANDER OSTROM

NS-201. NAVAL WEAPONS.—Evolution of naval ordnance; types and properties of explosives; principles in design and assembly of guns, ammunition, fuses; automatic weapons; basic designs in torpedoes, mines, anti-submarine devices; rockets, principles in the control of fire of naval weapons against air, surface, and underwater targets; nuclear explosives. 3 s.h. (w) LIEUTENANT WILSON

NS-202. NAVAL WEAPONS.—The elements in the problem of control of naval gun fire, the principles of mechanical and electronic solution of the problems; basic principles, capabilities and limitations of radar, sonar, and guided missiles; shore bombardment. 3 s.h. (w) LIEUTENANT WILSON

NS-301. NAVIGATION.—Magnetic and gyro compass; principles of chart construction; the sailings and dead reckoning; piloting; electronic and radar navigation; relative motion; rules of the nautical road; basic aerology and meteorology; maneuvering in storm areas. 3 s.h. (w) COMMANDER HARRELL; LIEUTENANT KENNEDY

NS-301M. EVOLUTION OF THE ART OF WAR.—A survey of the evolution of weapons, strategy, tactics and material; illustration of the classic principles of war by a study of selected battles and campaigns; a summary of the development of U. S. military and foreign policy. 3 s.h. (w) MAJOR READ

NS-302. NAVIGATION.—Nautical astronomy, including a study of the actual and apparent motion of earth, celestial coordinates, time systems, solutions of the astronomical triangle; solutions of observations for lines of position; use of the sextant; identification of stars and planets; complete day's work in practical navigation. 3 s.h. (w) COMMANDER HARRELL; LIEUTENANT KENNEDY

NS-302M. MODERN BASIC STRATEGY AND TACTICS.—Modern tactical principles and techniques, especially on the small unit level, illustrated by con-



temporary historical examples; development of a general understanding of strategy. 3 s.h. (w) MAJOR READ

NS-401. NAVAL MACHINERY AND DIESEL ENGINES.—Principles of steam engineering as related to naval installations for main propulsion; naval boilers, turbines, and related auxiliary machinery; pumps, distilling plants, and refrigeration. Basic principles of internal combustion engines, applications to propulsion installations for naval vessels, craft, and boats; fuels and lubricants. 3 s.h. (w)

LIEUTENANT KUBISZEWSKI

NS-401E. NAVAL MACHINERY, SHIP STABILITY.—Applications of engineering practices in marine propulsion plants; principles of ship stability. (Limited to Engineering majors.) 1 s.h. (w)

LIEUTENANT KUBISZEWSKI

NS-401M. AMPHIBIOUS WARFARE.—History and development of amphibious operations and organization; analyses of amphibious operations of World War II and of the Korean action. 3 s.h. (w)

MAJOR READ

NS-402. SHIP STABILITY, NAVAL JUSTICE, AND LEADERSHIP.—The principles of ship stability and buoyancy in the practice of ship design, and in the practice of damage control. The procedures for, and the responsibility of, an officer in the administration of naval justice. The psychology and techniques of leadership. 3 s.h. (w)

LIEUTENANT KUBISZEWSKI

NS-402M. AMPHIBIOUS WARFARE, PART II.—Further study of selected amphibious operations; Universal Code of Military Justice; leadership. 3 s.h. (w)

MAJOR READ

### REQUIREMENTS FOR COMMISSION

Naval Science: 24 semester hours.

Other university courses: Completion of course requirements to qualify for a baccalaureate degree, or higher. These courses must include Math 6 (unless math through trigonometry successfully completed in secondary school); Physics 1, 2 or 51, 52, to be completed by the end of the sophomore year (mandatory for Regular students only). Physical training must be taken in accordance with University requirements and each student must include such instruction in swimming as to qualify him as a first class swimmer.

Summer training: Regular NROTC students must participate in three periods of training on board ship or at naval shore stations. Contract students are required to take one training cruise of three weeks' duration, normally between the junior and senior years.

### PHILOSOPHY

PROFESSOR NEGLEY, CHAIRMAN; ASSISTANT PROFESSOR WELSH, DIRECTOR OF UNDERGRADUATE STUDIES; ASSISTANT PROFESSOR PEACH, SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSORS BAYLIS AND PATTERSON; DR. DUNHAM

48. LOGIC.—A study of the conditions of effective thinking and clear communication, and of typical sources of fallacies. Examination of the basic principles of *deductive* reasoning (making explicit the implications of statements) and of *inductive* reasoning (the formulation and testing of hypotheses on the basis of experience and experiment). Emphasis on practical illustrations and applications. 3 s.h. (E & w)

ASSISTANT PROFESSOR WELSH; DR. DUNHAM

49. ETHICS.—An introductory consideration of basic ethical concepts and principles as developed in European and American thought and culture. 3 s.h. (E & w)

PROFESSORS BAYLIS AND NEGLEY; ASSISTANT PROFESSOR WELSH

91. INTRODUCTION TO PHILOSOPHY.—A systematic and historical examination of the major problems of knowledge, morals, and metaphysics. 3 s.h. (E & w)

PROFESSOR PATTERSON; ASSISTANT PROFESSORS PEACH AND WELSH; DR. DUNHAM

93. HISTORY OF PHILOSOPHY: ANCIENT AND MEDIEVAL.—A study of the major philosophers of the period with special reference to the continuity of their thought. 3 s.h. (E)

PROFESSOR PATTERSON

94. HISTORY OF PHILOSOPHY: MODERN.—A study of the major philosophers of the period with special reference to the continuity of their thought. 3 s.h. (E & W) ASSISTANT PROFESSOR PEACH

97. POLITICAL AND SOCIAL PHILOSOPHY.—Discussion of the fundamental principles of political and social organization, with particular attention to democratic philosophy, corporate theory, and Marxist ideology. 3 s.h. (E) PROFESSOR NEGLEY

98. SOCIAL IDEALS AND UTOPIAS.—Reading of selected Utopias; analysis of the value-structures and political principles of these ideal societies. 3 s.h. (E) PROFESSOR NEGLEY

103. SYMBOLIC LOGIC.—Detailed analysis of deduction and of deductive systems. 3 s.h. (W) DR. DUNHAM

104. PHILOSOPHY OF SCIENCE.—The principal philosophical and methodological problems in contemporary science, with emphasis on the "Unity of Science" movement. 3 s.h. (W) DR. DUNHAM

109. INTRODUCTION TO THE PHILOSOPHY OF LANGUAGE.—Examination and discussion of such problems as the origin of language, sign-using behavior, definition, the nature of interpretation, and special uses of language: scientific, poetic, persuasive. 3 s.h. (W) ASSISTANT PROFESSOR WELSH

115. REASON AND COMMON SENSE IN 17TH AND 18TH CENTURY BRITISH THOUGHT.—Studies in the theories of reason and sentiment following Hobbes, and the development of opposition between rational, common sense, and empirical theories of knowledge and conduct. Reading in Cumberland, Shaftesbury, Hutcheson, Reid, and others. 3 s.h. (E) ASSISTANT PROFESSOR PEACH

116. THE DEVELOPMENT OF PHILOSOPHY IN AMERICA.—A historical and critical survey of the leading philosophical movements from Colonial times to the present. 3 s.h. (E) PROFESSOR NEGLEY

117. THE HISTORY OF ETHICS.—The basic moral ideals of Western civilization as expressed by major philosophers. Reading in original sources. 3 s.h. (E) ASSISTANT PROFESSOR WELSH

199. PHILOSOPHY OF RELIGION.—A critical examination of the facts of religious experience and their bearing upon metaphysics. 3 s.h. (E) PROFESSOR PATTERSON

#### FOR SENIORS AND GRADUATES

201. PHILOSOPHY OF LITERARY ANALYSIS.—Studies in the interpretation of literature, with emphasis on the influence of historical, aesthetic, and philosophical concepts. Examination of literary works as documents in the history of ideas. 3 s.h. (E) ASSISTANT PROFESSOR WELSH

203. CONTEMPORARY ETHICAL THEORIES.—Reading and critical examination of the principal contributions to ethics by twentieth-century American and British moralists. 3 s.h. (E) PROFESSOR BAYLIS

205. THE PHILOSOPHY OF HISTORY.—An enquiry into the logic and methodology of the knowledge of history and into the metaphysical implications of history. 3 s.h. (E) PROFESSOR NEGLEY

208. POLITICAL PHILOSOPHY.—Analysis of the structure of social organization, with particular reference to the function of legislation in democratic politics. 3 s.h. (E) PROFESSOR NEGLEY

209. THE PHILOSOPHY OF RELIGION.—A critical and constructive study of the nature of religion, of its various forms and manifestations, and of its functions in human life. 3 s.h. (E) PROFESSOR PATTERSON

211. PLATO.—3 s.h. (E) PROFESSOR PATTERSON

212. HISTORY OF MODERN PHILOSOPHY.—3 s.h. (E) ASSISTANT PROFESSOR PEACH

213-214. HISTORY OF AESTHETICS.—Theories of art and beauty from Pythagoras to Croce. 3 s.h. (E)

217. ARISTOTLE.—3 s.h. (E)

PROFESSOR PATTERSON

218. MEDIEVAL PHILOSOPHY.—A study of the philosophy of the Middle Ages, with special attention to selected texts from the works of leading Christian, Jewish, and Arabian philosophers. 3 s.h. (E)

PROFESSOR PATTERSON

223. CONTEMPORARY PHILOSOPHY: IDEALISM.—Examination and analysis of the idealist position in recent and contemporary philosophy, with special attention to the works of Bradley and Jordan. 3 s.h. (E)

PROFESSOR NEGLEY

224. CONTEMPORARY PHILOSOPHY: REALISM.—A critical analysis, comparison, and evaluation of the several varieties of recent realistic theories, presentative and representative. 3 s.h. (E)

PROFESSOR BAYLIS

225. LOCKE, BERKELEY, HUME.—3 s.h. (E)

231. PHILOSOPHY OF SCIENCE.—A historical and critical survey of the basic philosophical ideas underlying the development of modern science. 3 s.h. (E)

232. SPECIAL PROBLEMS IN PHILOSOPHY OF SCIENCE.—Investigation by students of advanced problems in philosophy of science, with special attention to a field determined by student's interest. 3 s.h. (w)

DR. DUNHAM

236. ORIENTAL PHILOSOPHY.—A study of the genesis of philosophical ideas in the Upanishads and the Bhagavadgita, and of the development of the orthodox systems and of the philosophies of the Jains and the Buddhists. 3 s.h. (E)

PROFESSOR PATTERSON

241. LOGIC.—Fundamental principles of valid deductive reasoning. 3 s.h. (w)

242. SCIENTIFIC METHODOLOGY.—A survey of the methods used in the various natural and social sciences. 3 s.h. (E)

250. PHILOSOPHICAL ANALYSIS.—A critical study of recent and contemporary essays in philosophical analysis, and an evaluation of the nature, methods, and results of this movement. 3 s.h. (E)

PROFESSOR BAYLIS

251. EPISTEMOLOGY.—3 s.h. (E)

PROFESSOR BAYLIS

252. METAPHYSICS.—3 s.h. (E)

PROFESSOR BAYLIS

#### DEPARTMENTAL MAJOR

*Major Requirements:* Twenty-four semester hours in philosophy including the following:

Philosophy 93 and 94.

Philosophy 117, 203, or 208.

6 semester hours in Philosophy senior-graduate courses.

Programs of study for departmental majors must be approved by the Director of Undergraduate Studies of the department.

#### PHYSICS

PROFESSOR NIELSEN, CHAIRMAN; PROFESSOR HATLEY, DIRECTOR OF UNDERGRADUATE STUDIES;  
PROFESSOR CARPENTER, SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSORS GORDY,  
LONDON, NEWSON, NORDHEIM, AND SPONER; ASSOCIATE PROFESSORS FAIRBANK  
AND GREULING; ASSISTANT PROFESSORS BLOCK AND LEWIS; DRs.  
MOBLEY AND WILLIAMSON; AND ASSISTANTS

A student wishing to major in physics should arrange to complete the necessary mathematics as soon as possible.

1-2. INTRODUCTORY PHYSICS.—This course traces historically and experimentally the development of the important principles of physics. This course is open to freshmen, sophomores and juniors and meets the general science requirement. Three hours of recitation and one two-hour laboratory each week. 8 s.h. (w)

PROFESSORS CARPENTER AND HATLEY AND STAFF; AND ASSISTANTS

**51-52. GENERAL PHYSICS.**—This course treats the basic principles of general physics in a more quantitative manner than Physics 1-2. It is designed for sophomores and juniors, and meets in a thorough way the physics requirement for entrance into the study of either medicine or engineering, and is well suited for the general science student. A limited number of freshmen who present physics for entrance and who are taking the required mathematics concurrently may be admitted by permission of the instructor. This course is not open for credit for students who have completed Physics 1-2. Four lecture-recitations and one three-hour laboratory period each week. Prerequisite: Mathematics 5-6 or equivalent (Mathematics 6 may be taken concurrently). 10 s.h. (w)

PROFESSORS HATLEY AND CARPENTER AND STAFF; AND ASSISTANTS

**125. INTERMEDIATE PHYSICS—MECHANICS.**—The course covers in a thorough manner the elements of mechanics. Three recitations per week. Prerequisites: Physics 1-2 or 51-52 or equivalent, and a course in differential and integral calculus which may be taken concurrently. 3 s.h. (w)

PROFESSOR NIELSEN

**126. INTERMEDIATE PHYSICS—ELECTRICITY.**—The elements of electricity and magnetism. Three lectures and one three-hour laboratory per week. Prerequisites: Physics 125 or equivalent work approved by the instructor, and differential and integral calculus. Integral calculus may be taken concurrently. 4 s.h. (w)

ASSISTANT PROFESSOR LEWIS

**175. INTERMEDIATE PHYSICS—OPTICS.**—The elements of geometrical and physical optics. Three recitations and one three-hour laboratory per week. Prerequisites: Physics 125 and 126 or equivalent work approved by instructor, and differential and integral calculus. 4 s.h. (w)

ASSISTANT PROFESSOR LEWIS

**176. INTERMEDIATE PHYSICS—THERMODYNAMICS AND KINETIC THEORY.**—The elements of thermodynamics and kinetic theory and elementary statistical mechanics. Three recitations per week. Prerequisites: Physics 125 or equivalent work approved by the instructor, and differential and integral calculus. 3 s.h. (w)

ASSOCIATE PROFESSOR FAIRBANK

A course in general college physics, Physics 125 and 126 or equivalent validated by examination, and a course in differential and integral calculus are prerequisites to all courses numbered 200 and above.

**201-202. MECHANICS.**—The fundamental principles of statics and the dynamics of particles and rigid bodies. Three recitations each week. 6 s.h. (w)

ASSISTANT PROFESSOR BLOCK

**203-204. ELECTRICITY AND MAGNETISM.**—Fundamentals of electricity and magnetism. Electrostatics and magnetostatics. Direct current circuits and networks—bridges, potentiometers, galvanometers, alternating current circuits and networks. Electromagnetic waves. 6 s.h. (w)

**205. SPECTROSCOPY.**—The theory of optical instruments and a discussion of spectroscopic laws and of information obtained by spectroscopic methods. Three lectures and one three-hour laboratory each week. 4 s.h. (w)

PROFESSOR SPONER

**213-214. CONTEMPORARY PHYSICS.**—A course which covers the fundamental concepts and the experimental basis of modern physics. Three lectures each week. 6 s.h. (w)

ASSISTANT PROFESSOR LEWIS

**217-218. ADVANCED PHYSICS LABORATORY.**—Measurements involving the fields of mechanics, electricity, magnetism, heat, sound, optics and modern physics. 2-6 s.h. (w)

THE STAFF

**219. ELECTRON TUBES AND THEIR APPLICATION.**—Fundamentals of electron tubes. Motion of charged particles, space charge, gaseous conduction. Electron tube circuits. Three hours of lecture and one three-hour laboratory per week. 4 s.h. (w)

PROFESSOR GORDY

**220. ELECTRONIC CIRCUIT ANALYSIS.**—Linear and non-linear circuit analysis, electric oscillations, operation of filters, Fourier analysis of wave phenomenon, coupling in electrical circuits. 3 s.h. (w)

PROFESSOR GORDY



225-226. **ELEMENTARY INVESTIGATIONS.**—The aim of this course is to provide training in the laboratory and library methods of physical research. Properly qualified students may conduct elementary investigations under the supervision of a member of the staff. 3-6 s.h. (w) THE STAFF

### DEPARTMENTAL MAJOR

#### A. For the A.B. degree:

*Prerequisites:* Physics 1-2 or 51-52 or equivalent, and Mathematics 5-6.

*Major Requirements:* Eighteen to 24 semester hours in physics including Physics 125, 126, 175 and 176 or equivalent.

*Related Work:* Eighteen to 24 semester hours from the following courses: Mathematics 51, 52, 53 and 131, and Chemistry 1-2.

#### B. For the B.S. degree:

*Prerequisites:* Physics 1-2 or 51-52 or equivalent, and Mathematics 5-6 or equivalent.

*Major Requirements:* Twenty-four to 34 semester hours in physics including Physics 125, 126, 175 and 176 or equivalent.

*Related Work:* Fourteen to 24 semester hours from the following courses: Mathematics 51, 52, 53 and 131, and Chemistry 1-2.

### POLITICAL SCIENCE

PROFESSOR RANKIN, CHAIRMAN; PROFESSOR CONNERY, DIRECTOR OF UNDERGRADUATE STUDIES; PROFESSORS COLE, HALLOWELL, VON BECKERATH, AND WILSON; VISITING PROFESSORS ROBSON,\* WESTPHALEN,† AND ZINK;† LECTURER ELLIS; ASSOCIATE PROFESSOR SIMPSON; ASSISTANT PROFESSORS CHEEK, HANSON, AND TRAVIS; DR. HALL; MESSRS. HOWELL AND NOBLE

The general objective of the Department of Political Science is to acquaint students with the theory and practice of government and politics at the local, state, national and international levels. While primary attention is focused upon the American political and administrative system, emphasis is also placed upon a comparative study of the political institutions and movements of thought peculiar to the nations of Europe, Latin America and the Far East. The student's attention is also directed to the problems encountered in international organization, politics and law. The development of political theories from Plato to the present day is an essential part of the department's course offerings. Methods of study include the descriptive, the historical, the legal, the comparative and the philosophical.

Directing its effort to an intelligent understanding of the contemporary world and of the responsibilities which are laid upon citizens of a democracy, the Department of Political Science shares the general objectives of a liberal arts education. While the department does not aim at vocational education, the knowledge it seeks to impart should be useful to anyone contemplating a career in the government service or politics.

Students intending to major in the department should take either Political Science 61-62 or 63-64. No student may take both courses for credit. Ordinarily one or the other must be taken before proceeding to more advanced work in the department. This rule may be waived with the consent of the instructor giving the advanced course.

The advanced courses are divided into three major groups but no sequence of courses beyond the introductory course is prescribed. The student would be well advised, however, to select some courses from each group.

The Senior Seminars are designed to provide an opportunity for majors in the department to pursue independent study and research.

### INTRODUCTORY COURSES

21. **PRINCIPLES OF GOVERNMENT.**—An introductory study of the principles and problems of government. Open to freshmen as an elective. 3 s.h. (w & e)

ASSISTANT PROFESSOR TRAVIS

\* First Semester, 1952-53.

† Second Semester, 1952-53.



22. GOVERNMENTAL PROBLEMS IN INTERNATIONAL RELATIONS.—A study of international politics as seen in current problems of international relations. Open to freshmen as an elective. 3 s.h. (w & e)

ASSISTANT PROFESSOR TRAVIS

61-62. AMERICAN GOVERNMENT AND POLITICS.—A study of the American constitutional and political system. Among other topics attention is given to the development of the constitution, federal-state relations, political parties and the organization and functions of the national, state and local governments. 6 s.h. (w & e)

PROFESSOR CONNERY; ASSOCIATE PROFESSOR SIMPSON; ASSISTANT PROFESSORS CHEEK AND HANSON; DR. HALL, AND MESSRS. HOWELL AND NOBLE

63-64. MODERN CONSTITUTIONAL GOVERNMENT.—Principles and institutions of modern constitutional government, the first semester being devoted to American government, the second to government outside the United States. 6 s.h. (w & e)

DR. ELLIS

#### POLITICAL THEORY AND COMPARATIVE GOVERNMENT

123. INTRODUCTION TO POLITICAL PHILOSOPHY.—A course devoted to the reading and discussion of selected political classics including Plato's *Republic*, Aristotle's *Ethics* and *Politics* and other works as time permits. 3 s.h. (w)

PROFESSOR HALLOWELL

136. MAJOR EUROPEAN GOVERNMENTS.—A general introductory survey of the governments of Great Britain, France, Germany, Italy, and the Soviet Union. Special attention is given to constitutional developments, the organization and ideologies of political parties, and current political problems. 3 s.h. (w)

PROFESSORS COLE AND HALLOWELL

152. LATIN-AMERICAN POLITICAL INSTITUTIONS.—A study of contemporary Latin-American governments. Particular attention is given to assessing the relative effectiveness of these institutions in terms of their social backgrounds. 3 s.h. (w)

ASSISTANT PROFESSOR TRAVIS

180. JURISPRUDENCE.—The development of legal systems and institutions together with a consideration of representative philosophies of law from ancient times to the present day. 3 s.h. (w)

PROFESSOR HALLOWELL

211. POLITICAL INSTITUTIONS OF THE FAR EAST.—A study of the governmental systems of Japan, Korea, and China from the Chou Dynasty to the present. 3 s.h.

223. POLITICAL THOUGHT TO THE SEVENTEENTH CENTURY.—A survey from the time of Plato to the close of the seventeenth century; Graeco-Roman, Patristic and Germanic thought; individualism and cosmopolitanism; effect of the Church-State controversy and the conciliar movement; medieval constitutionalism; legislative sovereignty. 3 s.h. (w)

PROFESSOR WILSON

224. MODERN POLITICAL THEORY.—An historical survey and philosophical analysis of political theory from the beginning of the seventeenth to the middle of the nineteenth century. Attention is given to the rise of liberalism, the Age of Enlightenment, the romantic and conservative reaction, idealism and utilitarianism. 3 s.h. (w)

PROFESSOR HALLOWELL

225. COMPARATIVE GOVERNMENT.—A comparative study of modern political institutions with particular attention to European constitutional government and politics. 3 s.h. (w)

PROFESSOR COLE AND VISITING PROFESSOR ROBSON

226. COMPARATIVE GOVERNMENT.—A comparative study of modern political institutions with particular attention to European authoritarian and dictatorial government and politics. 3 s.h. (w)

PROFESSOR COLE AND VISITING PROFESSOR ZINK

229. RECENT AND CONTEMPORARY POLITICAL THEORY.—The rise of positivism and its impact upon modern political thought, the origins of socialism, Marxism and its variants, socialism in the Soviet Union, nationalism, Fascism and National Socialism, the crisis in modern democracy, Christianity and the social order. 3 s.h. (w)

PROFESSOR HALLOWELL

231. AMERICAN POLITICAL THEORY.—An analysis of the main currents in American political thought from colonial beginnings to the present day, with emphasis upon the development of liberalism in America. 3 s.h. (w)

PROFESSOR HALLOWELL

235. THE BRITISH COMMONWEALTH.—An analysis of the political relationships between the members of the Commonwealth and a comparative study of the governments of the Dominions, with particular reference to Canada. 3 s.h. (w)

PROFESSOR COLE AND VISITING PROFESSOR ZINK

252. SPANISH-AMERICAN CONSTITUTIONALISM.—A comparative study of the nature, sources, and use of political authority in the constitutional law of Argentina, Chile, Colombia, and Uruguay. 3 s.h.

272. CONTEMPORARY EUROPEAN LABOR PROBLEMS.—An introduction to contemporary labor problems of Central Europe with particular emphasis on the effect of communist political pressure on the labor movement. 3 s.h. (w)

VISITING PROFESSOR WESTPHALEN

#### AMERICAN GOVERNMENT AND PUBLIC ADMINISTRATION

125. AMERICAN POLITICAL PARTIES AND PRACTICAL POLITICS.—A study of the historical development, organization, and methods of political parties in the United States. 3 s.h. (w)

ASSOCIATE PROFESSOR SIMPSON

141. PUBLIC ADMINISTRATION.—An introduction to the role of administration in the governmental process considering principles of administrative organization, methods of administrative control, personnel and fiscal management. In general the study of the organizational and administrative problems encountered by any governmental agency charged with carrying out a public policy. 3 s.h. (w)

146. LEGISLATION.—A study of the composition and structures of legislative bodies and of the legislative process with attention to procedure, methods, techniques, delegation of discretion, and the use of controls. 3 s.h. (w)

ASSOCIATE PROFESSOR SIMPSON

161. GOVERNMENT AND PLANNING.—A study of special areas in government planning. The semester's work is divided into three parts: city planning—land use and zoning, housing and urban redevelopment; resource planning—the governmental problems involved in planning for the conservation and use of natural resources, with special attention given to multi-purpose development of the river and its watershed, and a brief consideration of proposals and developments in the general field of economic planning. 3 s.h. (w)

ASSISTANT PROFESSOR HANSON

164. GOVERNMENT CONTROL OF THE SOCIAL AND ECONOMIC ORDER.—A study of governmental and administrative problems in the regulation of trade and the enforcement of the anti-trust laws, the regulation of transportation and communications and the role of the government in collective bargaining. Consideration is also given to the philosophic aspects of the general growth of government control of industry. 3 s.h. (w)

ASSISTANT PROFESSOR HANSON

174. POLITICS AND ECONOMICS.—An analysis of the influence of politically dominant forces and ideologies upon economic policies and of economics upon politics in societies of principal Western countries since the seventeenth century. 3 s.h. (w)

PROFESSOR VON BECKERATH

191. TOPICS IN LOCAL GOVERNMENT.—Problems in the general area of county and city government including the administration of government services such as education, public welfare, law enforcement; inter-governmental relationships; administrative reorganization; methods of popular control; and the reconstruction of state and local government so as to meet present-day needs. 3 s.h. (E)

ASSISTANT PROFESSOR CHEEK

207. AMERICAN CONSTITUTIONAL LAW AND THEORY.—A study of leading principles of American government, as developed through judicial interpretation of the Constitution. 3 s.h. (w)

PROFESSOR RANKIN

209. PROBLEMS IN STATE AND LOCAL GOVERNMENT IN THE UNITED STATES.—A study of the historical development of state and local governments, their present organizations and subdivisions and their relation to each other. Special attention is given to the position of the states in the federal union through the study of federal-state, inter-state, and state-local relations. 3 s.h. (w)

PROFESSOR RANKIN

230. AMERICAN POLITICAL INSTITUTIONS.—A study of the formation and development of institutions of the national government in the United States, with historical and analytical treatment. Among other topics this course is concerned with the Constitutional Convention of 1787, and the development of Congress, the Presidency, and the Supreme Court. 3 s.h. (w)

PROFESSOR RANKIN

241. ADMINISTRATIVE MANAGEMENT.—An advanced course in public administration with special attention being given to the development of scientific management, its application to government in the United States and a consideration of current problems in organization, procedures, work simplification, and management improvement. 3 s.h. (w)

PROFESSOR CONNERY

242. NATIONAL ADMINISTRATION.—A study of the administrative organization, working concepts and procedures of the United States Government, illustrated through the operations of the Bureau of the Budget. 3 s.h. (w)

PROFESSOR CONNERY

246. GOVERNMENT ADMINISTRATION AND PUBLIC POLICY.—Through use of the laboratory and case study techniques, a consideration of the types of administrative problems that the United States Government encounters in the field of public policy, and their possible solution. 3 s.h. (w)

PROFESSOR CONNERY

271. SOCIOPOLITICS AND CAPITALISM.—Labor and labor policies in Western Europe and the United States in the nineteenth and twentieth centuries; the development of monopoly power and political power of labor in recent decades. 3 s.h. (w)

PROFESSOR VON BECKERATH

291. PROBLEMS OF MUNICIPAL GOVERNMENT.—An analysis of problems relating to the structural system and activities of municipalities in the United States. 3 s.h. (w)

PROFESSOR RANKIN

292. MUNICIPAL ADMINISTRATION.—A study of principles and methods relating to municipal administration in the United States. 3 s.h. (w)

PROFESSOR RANKIN

#### INTERNATIONAL LAW AND RELATIONS

121. ELEMENTS OF INTERNATIONAL RELATIONS.—Analysis of international politics, of the foundations of national power, and of international co-operation, with emphasis upon attempted solutions of the central problem of international security. 3 s.h. (w)

DR. ELLIS

122. MODERN INTERNATIONAL POLITICS.—A survey of politics leading to the two World Wars with emphasis upon present day conditions resulting from these major conflicts. 3 s.h. (w)

DR. ELLIS

*Students who have received credit for History 135-136 may not receive credit for this course.*

131. SURVEY OF FAR EASTERN POLITICS.—An introductory survey of international politics in Eastern Asia and the Western Pacific; the rise of Japan as a modern state; China's struggle for political unity, independence and national development. 3 s.h. (Formerly Political Science 111) (w)

DR. ELLIS

132. CONTEMPORARY PROBLEMS IN FAR EASTERN POLITICS.—The impact of World War II and its aftermath on political institutions and economic structures in the Pacific area. 3 s.h. (Formerly Political Science 112) (w)

DR. ELLIS

151. INTERNATIONAL POLITICS OF LATIN AMERICA.—An examination of the political relations of Latin-American states among themselves, as well as with the United States, the United Nations, and the Organization of American States. 3 s.h.

ASSISTANT PROFESSOR TRAVIS

158. CONTROL OF AMERICAN FOREIGN POLICY.—A consideration of the forces which are responsible for the formulation of American foreign policy, and a study of the important factors which have influenced contemporary United States policy in the major areas of the world. The course includes an analysis of the respective roles of the President, Congress, Department of State, and the United Nations, as well as military and public opinion. 3 s.h. (w)

ASSISTANT PROFESSOR TRAVIS

212. INTERNATIONAL POLITICS OF THE FAR EAST.—A study of changing power relationships in the Orient since the arrival of Europeans. 3 s.h.

221. INTERNATIONAL PUBLIC ORGANIZATION.—A study of the structure and functioning of the United Nations organs, of related specialized agencies such as the International Labor Organization, and of regional agencies such as the Organization of American States. 3 s.h. (w)

PROFESSOR WILSON

227-228. INTERNATIONAL LAW.—Elements of international law, particularly as interpreted and applied by the United States; rights and duties of states with respect to recognition, state territory and jurisdiction, nationality, diplomatic and consular relations, treaties, treatment of aliens, pacific settlement of disputes, international regulation of the use of force, and collective security. 6 s.h. (w)

PROFESSOR WILSON

#### UNDERGRADUATE SEMINARS

201. SENIOR SEMINAR IN POLITICAL SCIENCE.—A seminar intended primarily for majors in Political Science, devoted to the reading, discussion and analysis of major works in modern and contemporary political science. Students are expected to prepare papers on relevant topics for group discussions. Open only to seniors. Prerequisite: consent of the instructor. 3 s.h. (w)

PROFESSORS COLE AND HALLOWELL

202. SENIOR SEMINAR IN POLITICAL SCIENCE.—Intended primarily for majors in Political Science, this seminar provides an opportunity for the application of principles to current political problems. It provides a means whereby specially qualified students can make a concentrated study of some problem of their own choice. Papers are required and special attention is given to research methods and materials. Political Science 201 is recommended but not required. Open only to seniors. Prerequisite: consent of the instructor. 3 s.h. (w)

PROFESSOR CONNERY

#### DEPARTMENTAL MAJOR

*Prerequisite:* Political Science 61-62 or 63-64.

*Major Requirements:* Eighteen semester hours of work in the Department above courses 61-62 or 63-64, including at least nine semester hours in Senior-Graduate courses.

*Related Work:* Six hours each in two departments approved by the Political Science adviser. Courses may not be those primarily open to freshmen. Usually related work is taken in the Departments of History, Economics, Sociology, or Philosophy.

#### PSYCHOLOGY

PROFESSOR RODNICK, CHAIRMAN; ASSISTANT PROFESSOR GARMEZY, DIRECTOR OF UNDERGRADUATE STUDIES; PROFESSORS ADAMS, DAI, KUDER, LUNDHOLM, AND ZENER; ASSOCIATE PROFESSORS BANHAM, KIMBLE, AND KOCH; ASSISTANT PROFESSORS COHEN, COLLIER, FILER, GUTTMAN, MCHUGH, AND REICHENBERG-HACKETT

91. INTRODUCTORY PSYCHOLOGY.—An introduction to the facts, principles, and problems of normal adult psychology through a study of psychological methods as applied to motivation, emotions, perception, sensation, thinking, memory, learning, individual differences, and personality. Offered both semesters. 3 s.h. (E & W)

STAFF

Course 91 or its equivalent is a prerequisite for all other courses in psychology.

104. COMPARATIVE PSYCHOLOGY.—An examination of the bearing upon general psychological theory, especially in the fields of motivation, learning, and



development, of observations and experimental investigations of animal behavior. 3 s.h. (E)

106. ABNORMAL PSYCHOLOGY.—A systematic presentation of the psychology of functional mental disorders with emphasis on its bearing upon general psychological theory. 3 s.h. (E)  
PROFESSOR LUNDHOLM

107. PSYCHOLOGICAL ANALYSIS OF PROMINENT CHARACTERS IN LITERATURE.—Introducing a method of extracting from literature and from the cultural document at large valid generalizations concerning human nature. This course is designed for students who are interested in reading classical literature. Seniors, who have taken Psychology 203, are not eligible for this course. 3 s.h. (E)  
PROFESSOR LUNDHOLM

109. INTRODUCTORY SOCIAL PSYCHOLOGY.—The influence of society on personality, public opinion, propaganda, mass behavior, social change and social movements, group differences. 3 s.h. (E)  
ASSISTANT PROFESSOR McHUGH

110. APPLIED PSYCHOLOGY.—Applications of psychology to problems of personnel selection, industrial efficiency, advertising and selling, and other problems of practical interest. 3 s.h. (E)  
ASSISTANT PROFESSOR McHUGH

111. ADVANCED GENERAL PSYCHOLOGY.—A more intensive study of several selected problem areas in the field of general psychology with special emphasis on experimental methods and findings in the areas considered. 3 s.h. (E)

115. PSYCHOLOGY OF PERSONALITY.—A study of the historical and contemporary methods of investigating personality; the development of personality; components of personality; critical evaluation of research in psychology and other sciences as it relates to a theory of personality; survey of systematic approaches to personality and of contemporary methods of measuring personality traits. 3 s.h. (E)  
ASSISTANT PROFESSOR REICHENBERG-HACKETT

116. PSYCHOLOGY OF ADJUSTMENT.—The course is planned to give an adequate understanding of problems of adjustment and of mental hygiene. Lectures and discussions cover an application of the principles and findings of normal and abnormal psychology as these relate to the adjustment of the average individual in our changing society; a survey of the principles of mental hygiene; discussions of current socio-cultural trends significant for individual adjustment. 3 s.h. (E)  
ASSISTANT PROFESSOR REICHENBERG-HACKETT

Not open to students who have had Education 68. Not given for major credit in Psychology.

119. ELEMENTARY LABORATORY PSYCHOLOGY.—A sequence of experiments with human and animal subjects on selected problems in learning, motivation, emotion and sensory processes. Emphasis will be placed upon the techniques involved in the design and execution of experiments and in the analysis and interpretation of scientific data. Laboratory and lecture. 4 s.h. (E)  
ASSISTANT PROFESSOR GUTTMAN

120. BASIC STATISTICAL TECHNIQUES IN PSYCHOLOGY.—The application of elementary statistical techniques to the collection, analysis, and interpretation of data in psychological research. 3 s.h. (E)  
ASSISTANT PROFESSOR COLLIER

121. CHILD PSYCHOLOGY.—A detailed study of the practical problems of infancy and early childhood, with special emphasis upon learning, emotional development, social adjustment, and modern conceptions and methods of child training and guidance. 3 s.h. (E)  
ASSISTANT PROFESSOR McHUGH

Not open to students who have had Education 118.

122. ADJUSTMENT OF THE PRE-SCHOOL CHILD.—Study and application of techniques of observing, recording and interpreting the behavior of the pre-school child. The course is designed to meet the needs of students interested in the personality development and social adjustment of children, to train them in techniques of observing and interpreting the physical, emotional and intellectual development of the individual child; the role of each child in the social structure within a play group, and a study of the development of group integration. One hour lecture and 4 hours laboratory. Permission of the instructor. 3 s.h. (E)  
ASSISTANT PROFESSOR REICHENBERG-HACKETT



126. **ADOLESCENT PSYCHOLOGY.**—The mental, social and emotional development of adolescence and youth will be studied, with special attention given to such topics as interest, motivation, home problems, sex differences, recreation, delinquency and development for citizenship. Prerequisite: Psychology 121 or Education 68. 3 s.h. (E) ASSISTANT PROFESSOR McHUGH

130. **PRINCIPLES AND METHODS OF PSYCHOLOGICAL EVALUATION.**—This is an introductory course in test methods used by psychologists in measuring and evaluating mental processes. The nature, purposes and utilization of various types of tests and psychological techniques will be discussed and demonstrated.

Among the tests to be studied will be standard scales of intelligence, verbal and performance, individual and group methods; tests of special abilities, aptitudes, attitudes and interests; personality test, rating scales and projective methods. 3 s.h. (E) ASSOCIATE PROFESSOR BANHAM

132. **THE PSYCHOLOGY OF INDIVIDUAL DIFFERENCES.**—A study of the nature and causes of individual and group variations in intelligence, special abilities, social and emotional characteristics. These will be considered in relation to developmental sequence, aging factors, sex, race and socio-economic conditions. 3 s.h. (E) ASSOCIATE PROFESSOR BANHAM

141. **PERSONALITY AND BEHAVIOR DISORDER.**—Behavior disorder and neurotic symptom formation are studied from the viewpoint of the psychological principles underlying the adjustment of the deviant personality. 3 s.h. (E) ASSISTANT PROFESSOR FILER

144. **LEARNING AND MOTIVATION.**—A survey of the basic facts and principles of human and animal learning and motivation. Topics covered include conditioning, trial and error learning, insightful learning, primary and secondary motivation, the relationship between motivation and learning and cultural variations in motives. Students in the course will perform a series of representative experiments. 3 s.h. (E) ASSOCIATE PROFESSOR KIMBLE

145. **EXPERIMENTAL APPROACHES TO PERSONALITY.**—A survey of psychological studies related to anxiety, conflict and frustration behavior and their implications for personality organization and development. Students will perform a series of representative experiments. 3 s.h. (E) ASSISTANT PROFESSOR GARMEZY

146. **EXPERIMENTAL PSYCHOLOGY IN INDUSTRY AND ENGINEERING.**—Applications of psychological principles to the solution of problems in industry and engineering. Topics covered include visual and auditory communication, visibility and legibility, visual display, control design, machine design, motivational and learning factors influencing production. Representative studies will be reviewed. Students in the course will perform several pertinent experiments. 3 s.h. (E) ASSISTANT PROFESSOR COLLIER

148. **PSYCHOLOGY OF PERCEPTION, MEMORY AND THINKING.**—A study of the basic phenomena of perception, memory and thinking as determined by the stimulus situation, motivation, learning and personality variables. Students will perform a series of representative experiments. 3 s.h. (E) PROFESSOR ZENER

203. **PURPOSIVE PSYCHOLOGY: CONATION AND OUR CONSCIOUS LIFE.**—A systematic presentation of the psychology of adult human achievements, adaptive as well as creative, with emphasis upon the significance for these endeavors of the acts of experiencing. Students who have taken Psychology 107 are not eligible for this course. 3 s.h. (E) PROFESSOR LUNDHOLM

206. **SOCIAL PSYCHOLOGY.**—A study of the constitution of society by man and of man by society. An analysis of social-psychological phenomena; such as, kinds of membership character, social movements, status and role-taking behavior, social determinants of perception and personality development and perceptual determinants of societies. 3 s.h. (E) PROFESSOR ADAMS

212. **PHYSIOLOGICAL PSYCHOLOGY.**—A survey of the interrelationships of biological and psychological factors in behavior, with particular reference to reflex action, motivation, learning and emotion. Emphasis will be placed on the relation between psychological theories and biological data. Presupposes Introductory Zoology. 3 s.h. (E) ASSISTANT PROFESSOR GUTTMAN

215. **DEVELOPMENTAL PSYCHOLOGY.**—Theory of personality structure and the changes it undergoes in development from infancy to old age, learning, conflict, character, intelligence, developmental crises, etc., evaluation of researches on personality dynamics; lectures, readings, motion picture demonstrations. 3 s.h. (E)  
PROFESSOR ADAMS

223. **ABNORMAL PSYCHOLOGY.**—A systematic presentation of the psychology of functional mental disorders with emphasis on its bearing upon general psychological theory. This course constitutes a slightly more technical survey of the same topic matter as Psychology 106. Seniors who have taken Psychology 106 are not eligible for Psychology 223. 3 s.h. (E)  
PROFESSOR LUNDHOLM

228. **PSYCHOLOGY OF BELIEF.**—3 s.h. (E)  
PROFESSOR LUNDHOLM

231-232. **INTRODUCTION TO RESEARCH.**—Restricted to senior psychology majors with at least a "B" average in psychology who have completed Psychology 119, Psychology 120 and one course from among 144, 145, and 148. Before registration an outline of the project must be submitted for written approval by a departmental committee and by the staff member to whom it assigns the supervision of the research.  
STAFF

236. **THEORETICAL PSYCHOLOGY.**—This course will be devoted to the analysis of techniques of theory construction in psychology. The discussion of these methodological issues will be co-ordinated with the analysis of concrete formulations in contemporary psychological theory. 3 s.h. (E)  
ASSOCIATE PROFESSOR KOCH

#### DEPARTMENTAL MAJOR

*Prerequisite:* Psychology 91 or equivalent.

*Major Requirements:* 24 semester hours in psychology including: Psychology 91, 119, 120; at least one course selected from Psychology 144, 145, and 148; at least one 200 level course.

*Related Work:* 18 semester hours of related work which usually includes courses in zoology and sociology or anthropology. Other courses which may meet the minor requirement must have the approval of the Director of Undergraduate Studies of the Psychology Department.

#### RELIGION

PROFESSOR MYERS, CHAIRMAN AND DIRECTOR OF UNDERGRADUATE STUDIES; DR. PERRY, SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSOR CRUM; ASSISTANT PROFESSORS BRADLEY, PHILLIPS, PRICE AND WETHINGTON; DR. SALES

The uniform course requirements in Religion may be fulfilled by completing six semester hours in any of the following courses: 1, 2, 51, 52, 91, 93, 94, 101, 103, 104, 114, 130, 132, 181, 182.

\* *The prerequisite in Bible may be fulfilled from the following courses: Religion 1, 2, 51, 52, 101, 103, 104, 114.*

1. **THE ENGLISH BIBLE.**—Survey of the contents of the historical and prophetic books of the Old Testament with particular reference to the literary, historical, and religious values. Required of all students majoring in religion and open to others as an elective in the freshman year. 3 s.h. (E & W)

PROFESSOR CRUM; ASSISTANT PROFESSORS BRADLEY AND PRICE;  
DRS. PERRY AND SALES; MR. DANIELS

2. **THE ENGLISH BIBLE.**—Study of the Psalms, Wisdom Literature, and the literature of the New Testament with special attention given to the literary, historical, and religious values. Required of all students majoring in religion and open to others as an elective in the freshman year. Although Religion 1 is not a prerequisite, it will be an aid to the student to complete 1 before taking 2. 3 s.h. (E & W)

PROFESSOR CRUM; ASSISTANT PROFESSORS BRADLEY, PRICE AND WETHINGTON;  
DRS. PERRY AND SALES; MR. DANIELS

51. THE ENGLISH BIBLE.—A survey of portions of the Old Testament literature in its historical and cultural setting. (For further details, see the description of Religion 1.) For sophomores; juniors may take this course. Students may not get credit for both 51 and 1. 3 s.h. (E & W)

PROFESSOR MYERS; ASSISTANT PROFESSORS BRADLEY, PRICE AND WETHINGTON; DR. SALES

52. THE ENGLISH BIBLE.—A survey of the later literature of the Old Testament and of the New Testament. (For further details; see the description of Religion 2.) For sophomores; juniors may take this course. Students may not get credit for both 52 and 2. Students will find either Religion 1 or 51 an aid to the work in 52. 3 s.h. (E & W)

PROFESSORS CRUM AND MYERS; ASSISTANT PROFESSORS BRADLEY, PRICE AND WETHINGTON; DR. SALES

91. AN INTRODUCTION TO CHRISTIAN ETHICS.—A study of the theistic interpretation of man's moral experience, based upon the world-view of the Bible, as contrasted with other classical and contemporary moral philosophies. 3 s.h. (w)

ASSISTANT PROFESSOR PRICE

93. SURVEY OF THE WORLD'S GREAT RELIGIONS.—An introductory course designed to acquaint the student with the problems and methods of the historical study of religion. After a brief study of religion in primitive culture the world's living religions are dealt with in terms of the historical development and the beliefs, practices and contemporary significance of each. Prerequisite: 3 semester hours of Bible.\* 3 s.h. (E)

ASSISTANT PROFESSOR BRADLEY

94. THE BEGINNINGS OF THE CHRISTIAN CHURCH.—A study of the development of Christianity in the first two hundred years. Special emphasis will be given to the work of Paul, the later New Testament writings, the *Apostolic Fathers* and the early Apologists. Prerequisite: Religion 2 or 52. 3 s.h. (w)

DR. SALES

101. THE SOCIAL TEACHINGS OF THE PROPHETS AND JESUS.—A study of the social teachings of the Old Testament prophets and of the social ideas of Jesus as they appear in the four gospels. Not open for credit to students who take Religion 103 or 114. Either semester. 3 s.h. (w)

ASSISTANT PROFESSOR PHILLIPS

103. THE PROPHETS OF THE OLD TESTAMENT.—In this course a study is made of the history and nature of prophecy, with particular attention being given to the messages of the outstanding pre-exilic literary prophets. Students may not receive credit for both 103 and 107 or 103 and 101. 3 s.h. (E & W)

PROFESSOR MYERS; DR. PERRY

104. JUDAISM FROM THE EXILE TO THE FALL OF JERUSALEM IN 135 A.D.—A study of post-exilic Judaism: the prophetic and apocalyptic developments of normative Judaism. 3 s.h. (w)

DR. SALES

107. THE GREAT PROPHETS OF ISRAEL.—Special consideration will be given to the times and messages of Amos, Hosea, Isaiah, Jeremiah and Ezekiel. An effort will be made to appraise their contributions to literature, ethics, and faith. Some attention will be given to the relevance of prophetic religion for the present. Prerequisites: Religion 1, 2 or 51, 52 or equivalent. Students may not receive credit for both 103 and 107. 3 s.h.

PROFESSOR MYERS

114. THE LIFE AND TEACHINGS OF JESUS.—This course considers the period in which Jesus lived, the record of his life, and the meaning of teachings as recorded in the Synoptic Gospels. Students may not receive credit for 114 and 101; or 114 and 116. 3 s.h. (E & W)

PROFESSOR MYERS; ASSISTANT PROFESSORS BRADLEY AND PRICE

116. THE MISSION AND MESSAGE OF JESUS.—An intensive study analyzing and interpreting the Gospel records of Jesus' career, with emphasis upon their significance for the Christian religion. Students will be expected to select and make reports on particular projects. Prerequisites: Religion 1, 2 or 51, 52 or equivalent. Students may not receive credit for both 114 and 116. 3 s.h. (w)

PROFESSOR MYERS

130. CHRISTIAN ETHICS IN HISTORY AND MODERN LIFE.—A study of the meaning of the Christian way, as formulated in the New Testament, historically interpreted by the Church and applied to modern society. Prerequisite: 3 s.h. in Bible.\* Students may not receive credit for both 130 and 132. 3 s.h. (w)

ASSISTANT PROFESSOR WETHINGTON

132. THE CHRISTIAN AND CONTEMPORARY SOCIAL PROBLEMS.—A study of the relevance which Christianity has to such topics as science, marriage, the state, war, politico-economic ideas and practices, communism, and the race problem. The aim of the course will be to encourage personal evaluation and interpretation, using pertinent biblical teachings and the views of prominent contemporary writers as a basis for judgment. Prerequisite: 3 semester hours of Bible.\* Students may not receive credit for both 132 and 130. 3 s.h. (w)

ASSISTANT PROFESSOR PHILLIPS

134. CONTEMPORARY RELIGIONS IN THE UNITED STATES.—A study of Judaism, Catholicism and Protestantism with reference to each faith's distinctive beliefs and practices; and a comparison of common and dissimilar features. 3 s.h.

ASSISTANT PROFESSOR PHILLIPS

169. CHARACTER PROBLEMS.—The psychology of adolescence and the problems of youth in character building, with attention to the character education agencies in local communities. 3 s.h. (E & W)

PROFESSOR CRUM

170. RELIGION AND THE FAMILY.—A study of marriage and American home life with emphasis upon ethical and religious aspects. Not open to students who take Sociology 250. 3 s.h. (E & W)

PROFESSOR CRUM

171. INTRODUCTION TO THE PSYCHOLOGY OF RELIGION.—A study of the genesis and growth of religious experience, with special emphasis upon the experiences of youth. 3 s.h.

PROFESSOR HICKMAN

181. THE NATURE AND EARLY DEVELOPMENT OF RELIGION.—Introduction to the early history of religion, the beliefs and practices of the more primitive peoples, and the religious life of the ancient world. 3 s.h. (w)

ASSISTANT PROFESSOR WETHINGTON

182. RELIGION IN THE CULTURE OF THE EAST AND WEST.—A comparative study of the meaning and role of religion in Eastern and Western cultures with particular emphasis upon the contemporary influence of the sacred literature of Hinduism, Buddhism, Confucianism, Judaism, Islam and Christianity. Prerequisite: 3 semester hours of Bible.\* 3 s.h. (w)

DR. PERRY

192. CHRISTIAN BELIEFS.—An introductory study of the nature, significance and contemporary relevance of some of the important Christian beliefs. Prerequisite: 3 semester hours of Bible.\* 3 s.h. (E)

ASSISTANT PROFESSOR BRADLEY

193. A STUDY OF MATERIALS SUITABLE FOR PUBLIC SCHOOL COURSES IN RELIGION AND ETHICS, including the English Bible and other religious literature. 3 s.h. (E)

ASSOCIATE PROFESSOR CRUM

197. THE BIBLICAL INTERPRETATION OF HISTORY.—Based upon materials in both the Old and New Testaments, consideration is given to the view of time and eternity, to the way in which God discloses His purpose for human life and participates in human affairs, and to the divine plan for the fulfillment of history. Prerequisite: 6 semester hours of Bible.\* 3 s.h. (w)

DR. PERRY

The following courses offered in the Divinity School may be taken by undergraduates:

103 (DS) -104 (DS). HELLENISTIC GREEK.—Designed for beginners to enable them to read the Greek of the New Testament. 6 s.h.

MR. EDWARDS

201 (DS) -202 (DS). FIRST HEBREW.—The principles and structure of the Hebrew language with translation of selected Old Testament narratives. 6 s.h.

PROFESSOR STINESPRING

207 (DS) -208 (DS). SECOND HEBREW.—Samuel or Kings the first semester and Isaiah the second. 6 s.h.

ASSISTANT PROFESSOR BROWNLEE



## DEPARTMENTAL MAJOR

*Prerequisite:* Religion 1-2 or 51-52.

*Major Requirements:* A major in the Department of Religion consists of 18 semester hours of work, exclusive of the introductory course, selected with the approval of the instructor under whose supervision the student does his major work. Six of the 18 semester hours must be in courses with biblical content.

*Related Work:* This is usually twenty-four semester hours, in courses that relate to the educational needs of the student. In general, it includes six semester hours in philosophy, psychology and sociology. Other courses may be chosen from the offerings in art, education, English literature, health education, Greek, history, Latin and political science.

## ROMANCE LANGUAGES

PROFESSOR JORDAN, CHAIRMAN; PROFESSOR WALTON, DIRECTOR OF UNDERGRADUATE STUDIES IN FRENCH; ASSOCIATE PROFESSOR DAVIS, DIRECTOR OF UNDERGRADUATE STUDIES IN SPANISH; ASSOCIATE PROFESSOR DOW, SUPERVISOR OF FRESHMAN STUDIES IN FRENCH; ASSISTANT PROFESSOR FEIN, SUPERVISOR OF FRESHMAN STUDIES IN SPANISH; PROFESSORS KENISTON AND FREDMORE; ASSOCIATE PROFESSORS ARCHIE AND CASTELLANO; ASSISTANT PROFESSORS DEMOREST AND TORRE; DRS. BOWEN, CORDLE, GIRARD AND GRANT; MRS. CASTELLANO, MRS. DOW, MR. PRATT, MISS CAMPBELL, MISS MULDROW, MESSRS. RENTZ, RUBIO AND THOMPSON

French 51-52 and Spanish 65-66 are the prerequisites for all elective courses. Some preparation in courses of the 100 level is prerequisite to election of courses above 200, except by special authorization of the department.

Students who, by reason of foreign residence, have had special opportunities in French or Spanish must be classified by the Director of Undergraduate Studies.

## FRENCH

1-2. ELEMENTARY FRENCH.—Essentials of grammar, reading of appropriate material, drill in the spoken language. 6 s.h. (w & e)

ASSOCIATE PROFESSOR DOW AND STAFF

3-4. INTERMEDIATE FRENCH.—Readings in standard literary texts, review of verbs and syntax, oral exercises based on the reading texts. Prerequisite: French 1 and 2 or two years of high-school French. 6 s.h. (w & e)

ASSOCIATE PROFESSOR DOW AND STAFF

51-52. INTRODUCTION TO FRENCH LITERATURE.—Reading of representative modern and contemporary literary texts. Study of the language with stress on the achievement of oral comprehension and ability to read. Prerequisite: French 3-4 or equivalent. 6 s.h. (w & e)

PROFESSOR WALTON AND STAFF

55. INTERMEDIATE CONVERSATION.—To be taken concurrently with French 51, except by departmental permission. Enrollment limited to 10 students per section. Recommended for prospective French majors.

MRS. DOW

56. INTERMEDIATE CONVERSATION.—Prerequisite: French 55. To be taken concurrently with French 52. 1 s.h. (e)

MRS. DOW

108. THE FRENCH ROMANTIC MOVEMENT.—The Cénacles, Romantic poetry, plays and novels. Lectures; selections from Lamartine, Hugo, Vigny, Musset, Dumas and others. 3 s.h. (e)

ASSOCIATE PROFESSOR DOW

111-112. FRENCH DRAMA SINCE 1850.—Plays by Augier, Dumas fils, Pailleron, Becque, Brieux, Curel, Rostand, and Lavedan are studied the first semester. Plays by Maeterlinck, De Flers, De Caillavet, Porto-Riche, Rostand, Sarmont, J. J. Bernard, Lenormand, Pagnol, Claudel and Giraudoux are studied the second semester. *Causeries* and *précis* in French, written and oral reports. 6 s.h. (e)

ASSOCIATE PROFESSOR DOW



123. LIBERAL THINKERS OF THE EIGHTEENTH CENTURY.—Selected works of such authors as Diderot, Montesquieu, Rousseau, and Voltaire will be studied from the point of view of their impact upon the social and political thinking for the day. 3 s.h. (w) ASSOCIATE PROFESSOR ARCHIE

127-128. ADVANCED COMPOSITION AND CONVERSATION.—During the first semester elements of syntax are briefly reviewed, along with constant drill in the conversational idiom. In the second semester, there are exercises in free composition, with intensified treatment of pronunciation and diction. 6 s.h. (F) MRS. DOW

134. CONTEMPORARY FRENCH LIFE AND THOUGHT.—An introduction to the essential currents in French thought since 1885. Representative literary works are used as a basis for analysis and discussion of the contemporary scene. 3 s.h. (w) DR. CORDLE

210. THE AGE OF RICHELIEU.—An introduction to French life and thought in the literature of the early seventeenth century. The transition from the Renaissance to classical culture. Discussions of the baroque, the *Libertins*, the scientific rationalists, the Counter Reformation. Extensive reading in Corneille and Pascal. Lectures in French. 3 s.h. (F) ASSISTANT PROFESSOR DEMOREST

213. FRENCH CLASSICISM.—Its initial phase. Readings from Malherbe, Molière, Racine, Boileau, La Fontaine, La Rochefoucauld, Madame de Sévigné, La Bruyère, and others. 3 s.h. (F) PROFESSOR WALTON

214. FRENCH CLASSICISM.—Its final phase. Readings from Fontenelle, Saint-Simon, Abbé Prévost, Marivaux, Lesage, Montesquieu, Voltaire, and others. 3 s.h. PROFESSOR WALTON

215-216. THE MODERN FRENCH NOVEL.—A survey of the novel form from the seventeenth to the twentieth century, with particular attention to the analysis of fundamental literary tendencies: classicism, rationalism, romanticism, and realism. 6 s.h. (F) PROFESSOR JORDAN

227. FRENCH POETRY SINCE THÉOPHILE GAUTIER.—Readings from the principal figures of the Parnassian and Symbolist movements, including Baudelaire, Leconte de Lisle, Heredia, Verlaine, Rimbaud, Mallarmé, Régnier. 3 s.h. (F) PROFESSOR WALTON

238. ANATOLE FRANCE.—Analysis of the principal phases of his work and its relation to the French tradition. Reading of his poetry, *Le Crime de Sylvestre Bonnard*, *Thaïs*, *Le Jardin d'Épicure*, *Les Dieux ont soif*, *Le Lys Rouge*, *L'Île de Pingouins*, part of *La Vie Littéraire*. 3 s.h. (F) PROFESSOR WALTON

#### SPANISH

1-2. ELEMENTARY SPANISH.—Essentials of grammar, reading of appropriate materials, drill in the spoken language. 6 s.h. (w & F) ASSOCIATE PROFESSOR DAVIS AND STAFF

3-4. INTERMEDIATE SPANISH.—Readings in standard literary texts, review of verbs and syntax, oral exercises based on the reading texts. Prerequisite: Spanish 1 and 2 or two years of high-school Spanish. 6 s.h. (w & F) PROFESSOR PREDMORE AND STAFF

65-66. INTRODUCTION TO SPANISH LITERATURE.—Reading of representative modern and contemporary literary texts. Study of the language with stress on the achievement of oral comprehension and ability to read. Prerequisite: Spanish 3-4 or equivalent. 6 s.h. (w & F) ASSOCIATE PROFESSOR CASTELLANO AND STAFF

68. INTRODUCTION TO SPANISH-AMERICAN LITERATURE.—Reading of selected modern novels typical of Spanish-American life, culture, and thought. This course is offered sometimes as an alternate to Spanish 66 and is accepted in fulfillment of major and graduation requirements. 3 s.h. (w & F) ASSOCIATE PROFESSOR CASTELLANO AND STAFF

71. INTERMEDIATE CONVERSATION.—To be taken concurrently with Spanish 65, except by departmental permission. Enrollment limited to 10 students per section. Recommended for prospective Spanish majors. 1 s.h. (E)

MRS. CASTELLANO

72. INTERMEDIATE CONVERSATION.—Prerequisite: Spanish 71. To be taken concurrently with Spanish 66 or 68. 1 s.h. (E)

MRS. CASTELLANO

155. REPRESENTATIVE WRITERS OF SPANISH AMERICAN LITERATURE.—Reading and discussion of major works which illustrate literary trends from the early Colonial period to 1880. 3 s.h. (E)

ASSISTANT PROFESSOR FEIN

156. REPRESENTATIVE WRITERS OF SPANISH AMERICAN LITERATURE.—Study of works which are examples of the principal literary currents after 1880, with particular reference to their relationship to social ideas and problems in the same period. 3 s.h. (E)

ASSISTANT PROFESSOR FEIN

173. ADVANCED CONVERSATION.—One hour a week will be devoted to a review of the elements of syntax. The remainder of the course aims to develop facility of expression through constant drill on vocabulary and conversational idiom. Prerequisite: Spanish 66 (or 68) and 71-72, or permission. 3 s.h. (E)

ASSOCIATE PROFESSOR CASTELLANO

174. PHONETICS AND DICTION.—This course is intended to round out the students' oral experience, with emphasis on accurate pronunciation. Use is made of phonographic demonstrations and corrective exercises, with individual recordings. Prerequisite: Spanish 173, or permission. 3 s.h. (E)

ASSOCIATE PROFESSOR CASTELLANO

257. OLD SPANISH LANGUAGE.—The historical development of the language together with illustrative readings. 3 s.h. (E)

ASSOCIATE PROFESSOR DAVIS

258. OLD SPANISH LITERATURE.—The literature of the Middle Ages and the early Renaissance. 3 s.h. (E)

ASSOCIATE PROFESSOR DAVIS

260. ADVANCED COMPOSITION AND SYNTAX.—Study of fundamental difficulties in the language; practice in writing idiomatic Spanish; exercises in free composition. For students who have a satisfactory command of Spanish grammar and fair conversational ability. Prerequisite: Spanish 173-174, or permission. 3 s.h. (E)

ASSOCIATE PROFESSOR CASTELLANO

264. MODERN AND CONTEMPORARY SPANISH THEATRE.—A brief review of the modern and contemporary Spanish theatre from the period of Romanticism. Lectures, reading, and discussion of the most representative works of Benavente, Martínez Sierra, los hermanos Quintero, etc. 3 s.h. (E)

ASSOCIATE PROFESSOR CASTELLANO

265. GOLDEN AGE LITERATURE: CERVANTES.—The life and thought of Cervantes with special emphasis on his *Quijote*. 3 s.h. (E)

PROFESSOR PREDMORE

266. GOLDEN AGE LITERATURE: THE DRAMA.—Study of the chief Spanish dramatists of the seventeenth century with readings of representative plays of this period. 3 s.h. (E)

ASSOCIATE PROFESSOR CASTELLANO

275. CONTEMPORARY SPANISH LITERATURE. ESSAY AND LYRIC POETRY.—A study of the revision of national values and literary expression in the twentieth century with particular reference to the crisis of 1898 and to the enrichment of the Spanish tradition through extrapeninsular influences. 3 s.h. (E)

PROFESSOR PREDMORE

276. CONTEMPORARY SPANISH LITERATURE: NOVEL.—A study of tradition and innovation in the twentieth century Spanish novel with emphasis on the novels of Unamuno, Baroja, Valle Inclán, and Pérez de Ayala. 3 s.h. (E)

PROFESSOR PREDMORE

285. THE EARLY RENAISSANCE IN SPAIN (1474-1550).—The major aspects are: humanism, reformation and counter-reform, the beginnings of the theater, the Italianate poets, the impact of the New World, architecture and the arts. 3 s.h. (E)

PROFESSOR KENISTON

286. THE LATER RENAISSANCE IN SPAIN (1550-1600).—The novel—chivalric, pastoral, picaresque—, the emergence of the *comedia*, the ballads, the mystics, lyric poets, literary theory, architecture and the arts. 3 s.h. (E)

PROFESSOR KENISTON

### THE TEACHING OF ROMANCE LANGUAGES

RL 118. THE TEACHING OF ROMANCE LANGUAGES.—Evaluation of objectives and methods; a study of the practical problems involved in the teaching of reading, writing, hearing, and speaking; analysis of text books, special foreign language programs, teaching aids, and testing techniques. 3 s.h. (E)

ASSOCIATE PROFESSOR DOW

### DEPARTMENTAL MAJOR

#### *Prerequisites:*

For French: French 51-52 (combined with 55-56), or equivalent.

For Spanish: Spanish 65-66 (combined with 71-72), or equivalent.

#### *Major Requirements:*

For French: Eighteen semester hours of work must be completed in courses numbered above 100 and must include: (a) six semester hours in course 127-128; (b) six semester hours of literature in courses 210 to 238.

For Spanish: Eighteen semester hours of work must be completed in courses numbered above 100 and must include: (a) six semester hours of linguistic training (courses 173-174, 260); (b) six semester hours of literature in the courses numbered above 200.

### RELATED WORK

Majors in Romance Languages will normally take the prescribed amount of related work in the following fields: (1) other foreign languages and literature; (2) aesthetics; (3) history and appreciation courses in music and art; (4) philosophy; (5) general psychology; (6) history; (7) general sociology and anthropology.

Majors in Spanish may take a maximum of six hours of Spanish American political science or economics if taken with or after Spanish 155-156.

## RUSSIAN

ASSISTANT PROFESSOR WINNER

51-52. INTRODUCTION TO THE RUSSIAN LANGUAGE.—Open to freshmen with the approval of the Dean. 6 s.h. (w)

ASSISTANT PROFESSOR WINNER

53-54. INTERMEDIATE RUSSIAN LANGUAGE.—Prerequisite: Russian 51-52 or equivalent. 6 s.h. (E)

ASSISTANT PROFESSOR WINNER

63-64. INTRODUCTION TO SCIENTIFIC AND MEDICAL RUSSIAN.—Introduction to the Russian language as used in the various contemporary sciences. Prerequisite: Russian 51-52 or equivalent. 6 s.h. (w)

ASSISTANT PROFESSOR WINNER

[Not offered in 1953-54]

101-102. RUSSIAN CULTURE AND LITERATURE THROUGH THE NINETEENTH CENTURY.—After a brief survey from earliest times through eighteenth-century classicism, enlightenment, and sentimentalism, attention is focused on the literature of the nineteenth century, and the development of romanticism and of the realist school. Special attention is given to the works of Pushkin, Lermontov, Gogol, Goncharov, Turgenev, Tolstoi, Dostoevski, and Gorki. Readings are assigned in English translation. 6 s.h. (w)

ASSISTANT PROFESSOR WINNER

103. AN INTRODUCTION TO SOVIET LITERATURE AND CULTURE.—An analysis of the development of Russian literature and culture since the Bolshevik revolution and the effect of Soviet policy on the literary production of the time. A survey of the important literary currents from Gorki and Mayakovski through Sholokhov. Lectures and class discussion. Readings will be assigned in English translation. 3 s.h. (E)

ASSISTANT PROFESSOR WINNER

[Not offered in 1953-54]

105. HISTORY OF THE RUSSIAN THEATRE AND DRAMA.—A discussion of the most significant stages of Russian dramatic art from the earliest primitive harvest ceremonies to the development of theatrical realism and naturalism in the end of the nineteenth century and the development of the dramatic arts in the Soviet Union is combined with a study of the development of the Russian theatre, with special emphasis on such figures as Stanislavski, Meierholdt, Vakhtangov, etc. Class discussion and visual demonstrations. Readings are assigned in English translation. 3 s.h. (E) ASSISTANT PROFESSOR WINNER

112. PUSHKIN AND THE BIRTH OF RUSSIAN REALISM.—A study of Pushkin and his contemporaries from the point of view of their relationship to the development of the Russian romantic movement and to the emergence of an independent Russian realistic approach to literature. An analysis of the influence of Western literary figures, particularly Byron, on the development of Russian letters of the early nineteenth century. Readings are assigned in English translation. Prerequisite: Russian 101 or consent of the instructor. 3 s.h. (E)

ASSISTANT PROFESSOR WINNER

## SOCIOLOGY AND ANTHROPOLOGY

PROFESSOR JENSEN, CHAIRMAN AND DIRECTOR OF UNDERGRADUATE STUDIES, EAST CAMPUS; ASSOCIATE PROFESSOR SCHETTLER, DIRECTOR OF UNDERGRADUATE STUDIES, WEST CAMPUS, AND SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSORS HART AND THOMPSON; ASSOCIATE PROFESSOR LA BARRE; ASSISTANT PROFESSORS WHITRIDGE AND ROY; MR. MCNURLEN

91-92. GENERAL SOCIOLOGY.—An introduction to the scientific study of social life; its origin, evolution and organization as illustrated in the study of a number of concrete social problems. 6 s.h. (E & W)

PROFESSOR JENSEN; ASSOCIATE PROFESSOR SCHETTLER; ASSISTANT PROFESSORS ROY AND WHITRIDGE; MR. MCNURLEN

101. GENERAL SOCIOLOGY.—A more intensive version of course 91-92, which enables the student to complete the introductory course in sociology in one semester. 5 s.h. (w) ASSISTANT PROFESSOR ROY

### I. ANTHROPOLOGY

111. GENERAL ANTHROPOLOGY.—Origins and distribution of the races of mankind; a survey of human palaeontology and human biology, world archaeology, prehistory and languages; and the origins of the family, primitive economics, arts, social and political organization. Special attention is given to primitive peoples. 3 s.h. (w) ASSOCIATE PROFESSOR LA BARRE

112. CULTURAL ANTHROPOLOGY.—A study of the dynamics of culture, the causal factors, functions, integration and disintegration, diffusion, growth and change of cultures. Emphasis is upon the simpler societies. 3 s.h. (w)

ASSOCIATE PROFESSOR LA BARRE

212. PRIMITIVE RELIGION.—The ethnography, the social functions and the socio-psychological meanings of religion in primitive societies. Prerequisite: course 91-92, or 101, or 111 or 112. 3 s.h. (w)

ASSOCIATE PROFESSOR LA BARRE

[To be offered fall semester of 1953-54]

213. PERSONALITY AND SOCIETY.—The sociology and social psychology of human personality, its origins in the primary group, its nature and varieties, and its integrations into secondary group institutions, with emphasis upon the normal personality and its adjustments in our society and to our culture. Prerequisite: course 91-92, or 101, or 111 or 112. 3 s.h. (w)

ASSOCIATE PROFESSOR LA BARRE

[Admission only by consultation with the instructor.]

214. PERSONALITY AND CULTURE.—The influence of culture patterns and social institutions on character structure, socialization of the individual and the dynamics of human personality. Comparative anthropological materials will be drawn upon. Prerequisite: course 213. 3 s.h. (w)

ASSOCIATE PROFESSOR LA BARRE

[Admission only by consultation with the instructor.]



215. **THE AMERICAN INDIAN.**—A comprehensive survey of the Indians of North and South America, including a study of origins and prehistory, archaeology, physical anthropology, languages, material culture, social and political organization, economics and religion, discussed in terms of the "culture area" concept, and illustrated with the ethnography of a characteristic tribe from each area. 3 s.h. (w)

ASSOCIATE PROFESSOR LABARRE

217. **THE PEOPLES OF AFRICA, ASIA, AND OCEANIA.**—A comprehensive survey of non-European peoples of the Old World, covering available prehistory, archaeology, racial affiliations, languages, material culture, social and political organization, economics and religion, discussed in terms of the "cultural area" concept, and illustrated with the ethnography of a characteristic tribe from each area. 3 s.h. (w)

ASSOCIATE PROFESSOR LABARRE

## II. COMMUNITY, RACE AND CULTURE

(Courses 91-92, or 101, or 111, or 112 prerequisite for all courses.)

133. **SOCIOLOGY OF THE SOUTH.**—The developing regional organization of the world economy studied with especial reference to Southern life and problems. A survey of the composition and distribution of population, races and race relations; economic conditions underlying population, race factors and culture of the South. Primary emphasis is upon social change and its control. 3 s.h. (w)

PROFESSOR THOMPSON

134. **HUMAN ECOLOGY.**—A study of the human community in its competitive and cooperative aspects. 3 s.h. (w)  
[Not offered in 1953-54]

PROFESSOR THOMPSON

136. **HUMAN MIGRATION.**—A study of mankind in motion, including a consideration of the nature of migration, types of migration and settlement, and problems of migratory contacts. 3 s.h. (w)  
[Not offered in 1953-54]

PROFESSOR THOMPSON

137. **THE NEGRO IN AMERICA.**—A study of the history and changing status of the Negro regarded as a symbol and protagonist of minority groups in America and elsewhere. 3 s.h. (w)

PROFESSOR THOMPSON

233. **RURAL SOCIOLOGY.**—The sociology of the land; peasant and folk societies and cultures; patterns of rural settlement like the farm, the plantation, the ranch and others; rural personality types; the changing character of rural life; rural problems. 3 s.h. (w)

PROFESSOR THOMPSON

235. **URBAN SOCIOLOGY.**—A study of the city and civilization, the newspaper, the social survey, the slum and housing, neighborhoods and natural areas, urban institutions, urban problems, and city planning. 3 s.h. (w)

PROFESSOR THOMPSON

237. **COMMUNITY AND SOCIETY.**—This course seeks to provide a frame of reference for the analysis and ordering of facts pertaining to the diverse cultures of the world, the State, the world community, the Great Society, news, mass behavior, social problems, races and classes. 3 s.h. (w)

PROFESSOR THOMPSON

238. **RACE AND CULTURE.**—A study of the nature of race and of the relationships and problems of race. 3 s.h. (w)

PROFESSOR THOMPSON

## III. COLLECTIVE BEHAVIOR

(Courses 91-92, or 101, or 111 or 112 prerequisite for all courses.)

142. **THE SOCIOLOGY OF DISCUSSION.**—A course designed to develop practical social skills in intellectual cooperation. In the light of sociological theory of intellectual conflict, competition and cooperation, practice will be provided in the group solution of problems through committees, conferences and forums, and in the discussion processes whereby cooperation can be substituted for social antagonism. Prerequisites: either Sociology 91, 101, or 111, or 112, and six hours to be from history, political science, Economics 105 and 155, and Education 115 and 176. Enrollment limited to a maximum of 30. 3 s.h. (w)

PROFESSOR HART



149. **INTRODUCTION TO CHILD WELFARE.**—A study of heredity and environment as factors in personality development; infant conservation; welfare responsibilities of the school, emphasizing the physical and mental well-being of the child, play, and compulsory and industrial education; child labor, diagnosis and treatment of delinquency; care of the dependent and neglected child; child-caring agencies, public and private; and a community program of child welfare. 3 s.h. (E) PROFESSOR JENSEN

243. **SOCIAL ATTITUDES AND COLLECTIVE BEHAVIOR.**—Study of attitudes as products of social interaction; organization of attitudes into personal behavior patterns; expression of social attitudes in social, political and industrial groups; social unrest and the behavior of crowds and mobs; analysis of social movements, strikes, revolutions, and other group organizations. 3 s.h. (w) ASSOCIATE PROFESSOR SCHETTLE

246. **PUBLIC OPINION AND PROPAGANDA.**—Nature and development of public opinion; relation to attitude, biases, stereotypes and controversial issues; role of leaders, pressure groups and minority groups; use of radio, press, motion picture and graphic arts; propaganda and censorship; measurements of public opinion. 3 s.h. (w) ASSOCIATE PROFESSOR SCHETTLE

249. **CHILD WELFARE.**—A special course in child welfare designed primarily for graduates. Not open to students who have had course 149. 3 s.h. (E) [Offered in Summer Session] PROFESSOR HART

250. **MARRIAGE AND THE FAMILY.**—An analysis of contemporary marriage and family experience with emphasis on its functions, problems, resources and values. Not open to students who have received credit for Religion 170. 3 s.h. (w) PROFESSOR HART

#### IV. SOCIAL ORGANIZATION AND DISORGANIZATION

(Course 91-92, or 101, or 111 or 112 prerequisite for all courses.)

153. **THE FIELDS OF SOCIAL WORK.**—A non-professional course, designed to acquaint the student with the types of problems existing in both rural and urban communities which can be dealt with in a remedial and preventive way; how they arise in the reciprocal interaction of personality and culture, what their efforts are in terms of personal and social disorganization, how communities are organized to deal with them, and social agencies which have been developed to deal with problems of each type, together with an evaluation of effectiveness of the techniques employed. 3 s.h. (E) ASSISTANT PROFESSOR WHITRIDGE

157. **SOCIAL CHANGE AND SOCIAL CONTROL.**—Basic nature of inventions as related to ideological and material factors; role of the inventor, reformer, and non-conformist; mobility, diversification and individualism as by-products of social change; techniques of social control in the family, school, church, industry and government; social planning and leadership in a dynamic society. 3 s.h. (w) ASSOCIATE PROFESSOR SCHETTLE

158. **SOCIOLOGY OF THE PROFESSIONS AND OCCUPATIONS.**—Analysis of the professional and occupational structure of the American economy; shifts and trends in occupations and professions for men, women and minority groups; social and economic characteristics of occupational and professional groups; factors in the selection of a profession or occupation; sources of information about occupations and professions; measurements of aptitudes, abilities and skills; employer-employee relationships. 3 s.h. (w) ASSOCIATE PROFESSOR SCHETTLE

165. **INTRODUCTION TO INDUSTRIAL SOCIOLOGY.**—An analysis and appraisal of the various factors that affect human relations in industry. It will deal with the interpersonal and intergroup relationships within the individual industrial unit which determine its efficiency as an economic and social institution; the social relationships of workers with one another and with management; their influence upon productivity, the relations of the worker toward the job, labor turnover, absenteeism, etc., and the social conditions in the community, housing, family life; recreation, etc., as they affect the social relations within the industrial community. 3 s.h. (w) ASSISTANT PROFESSOR ROY

166. **INDUSTRY AND SOCIETY.**—A study of industrial institutions in their interrelationships with other forms of social behavior in the broad cultural setting of western civilization. The emphasis in this course will be on an examination of the influence of changes in the technical and social organization of industry upon community organization, social stratification, social mobility, social interaction, and personality development. Attention will center upon analysis of specific social problems resulting from the impact of industrial change. 3 s.h. (w)

ASSISTANT PROFESSOR ROY

262. **EDUCATION AND THE CULTURAL PROCESS.**—A study of education (1) as carried on traditionally among preliterate and folk peoples, and (2) as it becomes a problem in racially and culturally complex societies like that of the United States. 3 s.h. (w)

PROFESSOR THOMPSON

[Not offered in 1953-54]

271. **SOCIAL PATHOLOGY.**—A study of the causes, extent, significance, and constructive treatment of the principal forms of pathology in modern society; poverty, physical defectiveness, malnutrition, mental deficiency, mental disease, undirected leisure activities and unstandardized commercial recreation, alcoholism, prostitution, vagrancy, and delinquency. 3 s.h. (E)

PROFESSOR JENSEN

273. **SPECIAL PROBLEMS IN SOCIAL PATHOLOGY.**—Research projects in social and personal disorganization, limited to advanced students with the approval of the instructor. 1 to 3 s.h. *each semester*. (w)

PROFESSOR JENSEN

276. **CRIMINOLOGY.**—A study of the original tendencies of man and the problem of socializing these tendencies; the relations of physical and mental defectiveness and untoward influence in the home and neighborhood to crime; the development of criminological theory and procedure, emphasizing penal and reform methods, and especially modern methods of social treatment and prevention of crime. 3 s.h. (E)

PROFESSOR JENSEN

277. **JUVENILE DELINQUENCY.**—An intensive study of current research findings as to the nature, causes, extent and distribution of juvenile delinquency; individual and institutional methods of treatment and prevention; diagnostic clinics, juvenile courts and probation, training schools, coordinating councils and preventive agencies. 3 s.h.

[Not offered in 1953-54]

## V. SOCIAL THEORY

(Course 91-92, or 101, or 11 or 111 prerequisite for all courses.)

286. **SOCIAL ETHICS.**—A study of sociological fundamentals underlying ethics, including the controversy between materialistic and idealistic social thinkers, the nature of personalities and of social organization, the nature of social values, types of social interaction and their effects upon general social values, underlying principles and facts of social change, and the bearings of all these upon certain social problems. 3 s.h. (w)

PROFESSOR HART

288. **CONTEMPORARY PROBLEMS IN CULTURAL LAG.**—An exploration of such sociological problems as social evolution, cultural lag, conflict, accommodation, leadership, and social reform, in relation to the crisis of civilization, precipitated by the development of the atomic bomb and by kindred discoveries and inventions. 3 s.h. (w)

PROFESSOR HART

## VI. METHODS OF SOCIAL RESEARCH

(Course 91-92, or 101, or 111 or 112 prerequisite for all courses.)

191. **PRINCIPLES OF SOCIAL CASE INVESTIGATION.**—A non-professional course designed to acquaint the student with the basic research techniques employed in the case study of the interrelationships of personality and culture in various fields of sociological and anthropological interest. 3 s.h. (E)

ASSISTANT PROFESSOR WHITRIDGE

193. BASIC STATISTICAL METHODS IN SOCIOLOGY.—The processes of definition, classification, measurement, tabulation, association, correlation, comparison of averages and of percentages, prediction, preparation and interpretation of tables and charts, as applied to and illustrated by sociological data. One lecture, one recitation and three laboratory hours. 3 s.h. (w) PROFESSOR HART

292. STATISTICAL TECHNIQUES IN SOCIOLOGY.—Intended for graduate students, and for undergraduates who are ready to undertake original statistical research projects. 3 s.h. (w) PROFESSOR HART

293. SPECIAL PROBLEMS IN SOCIAL STATISTICS.—Applications of statistical techniques to specific research topics. Limited to advanced students with permission of the instructor. 1 to 3 s.h. each semester. (w) PROFESSOR HART

#### DEPARTMENTAL MAJOR

*Prerequisite:* Sociology 91-92 or 101.

*Major Requirements:* Eighteen semester hours of work in the Department in addition to Sociology 91-92 or 101, including at least six semester hours in Senior-Graduate courses.

*Related Work:* A minimum of eighteen semester hours, at least twelve of which are normally chosen from two of the following fields: economics, education, history, political science and psychology. Additional courses in health and physical education, philosophy and religion may also be elected as related work when indicated by the educational requirements of the student and approved by the departmental adviser. But not more than six hours work in courses primarily open to Freshmen can be counted toward this requirement.

#### ZOOLOGY

PROFESSOR GRAY, CHAIRMAN; ASSOCIATE PROFESSOR BOOKHOUT, DIRECTOR OF UNDERGRADUATE STUDIES; ASSOCIATE PROFESSOR ROBERTS, SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSORS SCHMIDT-NIELSEN AND WILBUR; ASSOCIATE PROFESSORS HUNTER AND WHARTON; ASSISTANT PROFESSORS BAILEY, HORN AND NACE; DRs. BARNES, SANDEEN, VERNBERG AND WARD

##### UNDERGRADUATE COURSES

1. ANIMAL BIOLOGY.—The principles of biology as applied to animals. 4 s.h. (w & E) ASSOCIATE PROFESSORS HUNTER AND ROBERTS AND STAFF

2. GENERAL ZOOLOGY.—A brief survey of the animal kingdom. Prerequisite: Zoology 1. 4 s.h. (w & E) ASSOCIATE PROFESSORS BOOKHOUT AND HUNTER AND STAFF

53. COMPARATIVE VERTEBRATE ANATOMY.—A study of the anatomy and evolution of the organ systems of vertebrates. Prerequisites: Zoology 1, 2. 4 s.h. (w) ASSISTANT PROFESSOR HORN AND STAFF

92. GENERAL EMBRYOLOGY.—A study of the fundamental principles of embryology as illustrated in the frog, chick and mammal. Prerequisite: Zoology 53. 4 s.h. (w) ASSISTANT PROFESSOR HORN AND STAFF

109. EVOLUTION.—The facts and theories of organic evolution. Prerequisite: two years of zoology. 3 s.h. (w) ASSISTANT PROFESSOR BAILEY

110. INTRODUCTION TO GENETICS.—The principles and practical applications of genetics as applied to animals, including man. Prerequisite: one year of zoology. 3 s.h. (w) DR. VERNBERG

120. ORNITHOLOGY.—Lectures, laboratory and field trips dealing with the classification, adaptations, and natural history of birds. Prerequisite: one year of zoology. Zoology 53 recommended. 4 s.h. (w) ASSISTANT PROFESSOR BAILEY

151. PRINCIPLES OF PHYSIOLOGY.—An introductory survey of physiological functions. Prerequisites: At least a year of zoology and a year of chemistry. 4 s.h. (w) PROFESSORS SCHMIDT-NIELSEN AND WILBUR

156. VERTEBRATE HISTOLOGY.—The microscopic structure of normal tissues and organs of the vertebrate body. Training will be given in the preparation of material for microscopic study. Prerequisite: Zoology 53. 4 s.h. (w)

ASSOCIATE PROFESSOR ROBERTS

161. ANIMAL PARASITES.—With emphasis upon those infesting man. Prerequisite: one year of zoology. 4 s.h. (w)

ASSOCIATE PROFESSOR WHARTON

193. FUNDAMENTALS OF ZOOLOGY.—The principles involved in the study of structure, function, ecology, genetics, classification, and evolution of animals. An elementary course without laboratory designed for senior students. Not open to students who have had previous courses in zoology. 3 s.h. (w)

196. SEMINAR: CURRENT DEVELOPMENTS IN ZOOLOGY.—Prerequisites: Zoology 53 and 92. Open only to seniors. 2 s.h. (w)

STAFF

#### FOR SENIORS AND GRADUATES

202. HELMINTHOLOGY.—Classification, morphology, and host relations of parasitic worms. Lectures, readings, reports and laboratory work. Offered in alternate years. Prerequisite: Zoology 161. 4 s.h. (w)

ASSOCIATE PROFESSOR HUNTER

204. ADVANCED PARASITOLOGY.—Lectures, conferences, readings, and laboratory work, dealing with practical and theoretical matters relating to animal parasites. Offered in alternate years. Prerequisite: Zoology 161. 4 s.h. (w)

ASSOCIATE PROFESSOR WHARTON

219-220. SPECIAL PROBLEMS.—Senior majors who have had proper training may be permitted to carry on special work. Permission must be obtained from the Director of Undergraduate Studies and the instructor under whom the student wishes to work. Not more than 4 s.h. (w & e)

STAFF

222. ENTOMOLOGY.—A study of anatomy, physiology, embryology, and classification of insects. Offered in alternate years. Prerequisite: One year of zoology. 4 s.h. (w)

PROFESSOR GRAY

224. VERTEBRATE ZOOLOGY.—A study of life histories, adaptations, ecology and classification of vertebrate animals. Offered in alternate years. Prerequisite: Zoology 53. 4 s.h. (w)

PROFESSOR GRAY

229. ENDOCRINOLOGY.—The structure, physiology, and embryology of the endocrine glands. Lectures, reading assignments, reports and laboratory work. Prerequisites: Zoology 53, 92. 4 s.h. (w)

238. SYSTEMATIC ZOOLOGY.—The fundamental theory and practice involved in the collection, identification, and classification of animals. Offered in alternate years. Prerequisites: Zoology 1, 2. 4 s.h. (w)

ASSOCIATE PROFESSOR WHARTON

252. COMPARATIVE PHYSIOLOGY.—The physiological mechanisms of animals studied on a comparative basis. Prerequisite: Zoology 151 or equivalent. 4 s.h. (w)

PROFESSOR SCHMIDT-NIELSEN

253. ADVANCED VERTEBRATE MORPHOLOGY.—Lectures, reports, and reading assignments in the comparative morphology of the vertebrates, with particular emphasis on theories concerning the interrelationships of vertebrates and the origin of certain vertebrate structures. Advanced laboratory study of structure in selected groups of vertebrates. Offered in alternate years. Prerequisites: Zoology 53, 92. 4 s.h. (w)

ASSISTANT PROFESSOR HORN

271. CELLULAR PHYSIOLOGY.—The physiological processes of living matter approached through studies of cells and tissues. Prerequisites: two years of biology and at least one year of chemistry. 4 s.h. (w)

PROFESSOR WILBUR

274. INVERTEBRATE ZOOLOGY.—A study of structure function, and habits of invertebrate animals under normal and experimental conditions. Field trips will be made to study, collect, and classify animals in their natural habitats. Offered in alternate years. Prerequisites: Zoology 1, 2. 4 s.h. (w)

ASSOCIATE PROFESSOR BOOKHOUT

276. PROTOZOOLOGY.—The morphology, physiology, taxonomy, and culture of protozoa. Offered in alternate years. Prerequisites: Zoology 1, 2. 4 s.h. (w)

ASSOCIATE PROFESSOR BOOKHOUT

278. INVERTEBRATE EMBRYOLOGY.—Lectures, readings and laboratory work dealing with rearing, life history and development of invertebrates. Offered in alternate years. Prerequisite: Zoology 92. 4 s.h. (w)

ASSOCIATE PROFESSOR BOOKHOUT

For summer courses in Marine Biology consult the Bulletin of the Duke University Marine Laboratory.

RELATED COURSES, ONE OF WHICH MAY BE COUNTED TOWARD A  
MAJOR IN ZOOLOGY

BOTANY 101. PRINCIPLES OF HEREDITY.—3 or 4 s.h. (w)

ASSOCIATE PROFESSOR PERRY

BOTANY 202. GENETICS.—4 s.h. (w)

ASSOCIATE PROFESSOR PERRY

DEPARTMENTAL MAJOR

*Prerequisites:* Zoology 1 and 2.

*Major Requirements* (for both A.B. and B.S. degrees): A minimum of 24 s.h. of zoology including courses 53, 92, 151 or 271.

*Related Work:* At least one year of chemistry; additional work usually chosen from courses in botany, chemistry, geology, mathematics and physics.

*Language Requirements:* For A.B. degree: Preferably German or French. For B.S. degree: Both German and French.



# Courses of Instruction College of Engineering



## CIVIL ENGINEERING

PROFESSORS BIRD AND HALL; ASSOCIATE PROFESSOR SNOW; ASSISTANT PROFESSORS HAINES, LEWIS, PALMER, AND WILLIAMS; MESSRS. BROWN AND WHITE

61. PLANE SURVEYING.—Use of instruments; transit, stadia and compass surveying; determination of meridian by observation on Polaris; differential and profile leveling; setting grade stakes; calculation of bearings, latitudes, departures and areas; methods of plotting; survey and plot of portions of campus by stadia, and transit and tape; care and adjustment of instruments. Prerequisites: G.E. 1 and Math 6. 4 s.h. (w)  
MR. BROWN

62. ADVANCED SURVEYING.—Simple triangulation; topographic surveying using stadia and plane table; laying out and division of land; public land system; calculations; grading plans and quantities; determination of azimuth by H. O. 211. Prerequisite: C.E. 61. 4 s.h. (w)  
MR. BROWN

108. ADVANCED STRENGTH OF MATERIALS.—Applications of Mohr's circle, deflections, and energy of strain to advanced problems. Prerequisite: G.E. 107. 3 s.h. (w)  
ASSISTANT PROFESSOR WILLIAMS  
[Offered only upon sufficient demand; enrollment limited.]

5110. PLANE SURVEYING.—The equivalent of C.E. 61 given especially for students in forestry. See *Bulletin of Summer Session*. 4 s.h. (w)  
MR. BROWN

113. ROUTE SURVEYING.—Thorough drill in the calculation and laying out of simple, compound, and easement curves, widening of curves; vertical curves; setting slope stakes; ordinary earthwork computations and mass diagrams. Prerequisite: C.E. 61. 3 s.h. (w)  
ASSISTANT PROFESSOR WILLIAMS

116. HIGHWAY ENGINEERING.—Location, design, construction and maintenance of highways and city streets; soil stabilization; traffic studies; economics of planning and design. Prerequisites: C.E. 113, C.E. 135. 3 s.h. (w)  
ASSISTANT PROFESSOR WILLIAMS

118. MATERIALS OF ENGINEERING.—Study and testing of materials commonly used in civil engineering. The content of course GE 109 and standard tests to determine significant physical properties of cementing materials and aggregates. The design and proportioning of concrete mixtures. Prerequisite: GE 107. 3 s.h.  
ASSISTANT PROFESSOR WILLIAMS

120. ENGINEERING STATISTICS.—Statistical methods applied to engineering problems. Typical engineering data analyzed to illustrate arithmetically and geometrically normal distributions; binomial distribution; Poisson's distribution. Testing data of engineering materials and the use of student's distribution. Sequential analysis and control of production quality. 3 s.h. (w)  
ASSOCIATE PROFESSOR SNOW

[Offered only upon sufficient demand; enrollment limited.]

121. HYDROLOGY.—Fundamentals of meteorology; precipitation; evaporation. Ground water development. Stream flow and stream gaging. Hydrograph analysis. Flood control. Field trips to be arranged. Prerequisite: G.E. 128. 3 s.h. (w)  
ASSOCIATE PROFESSOR SNOW

[Offered only upon sufficient demand; enrollment limited.]

123. WATER SUPPLY AND SEWAGE.—Statistical analysis of rainfall and runoff records; population estimation; analysis of the yield of watersheds and storage

requirement; design of water distribution systems; design of sanitary and storm sewerage systems. Prerequisite: G.E. 128. 4 s.h. (w) ASSOCIATE PROFESSOR SNOW

124. WATER PURIFICATION AND SEWAGE TREATMENT.—Chemical and bacteriological analysis of water and sewage effluents; design of water purification treatment systems; design of sewage treatment plants. Prerequisite: C.E. 123. 3 s.h. (w) ASSOCIATE PROFESSOR SNOW

128. INDUSTRIAL WATER SUPPLIES.—Water quality for industrial uses. Analytical techniques and interpretation of results. Boiler feed water requirements; softening, ion exchange; deaeration, priming; foaming; corrosion; embrittlement. Control of treatment processes. Prerequisite: Chemistry 1-2. 3 s.h. (w) ASSOCIATE PROFESSOR SNOW

[Offered only upon sufficient demand; enrollment limited.]

129-130. ELEMENTARY STRUCTURES.—Stresses in beams and trusses for fixed and moving loads. Deflection of beams and trusses. Design of tension, compression, and flexural members; connections; and plate girders. Design of reinforced concrete beams, slabs, columns, footings, and retaining walls. (For students not majoring in Structural Engineering.) Prerequisite: G.E. 107. 6 s.h. (w) ASSISTANT PROFESSOR PALMER

[Offered only upon sufficient demand; enrollment limited.]

131. STRUCTURES.—ANALYSIS AND ELEMENTARY DESIGN.—Stresses in roofs, parallel and inclined chord bridges, including sub-divided panels, by algebraic and graphic methods under all conditions of loading; shear and moments in frames and bents; influence lines; Williot diagram. Structural drafting, details in steel and wood; methods of fabrication and erection. Prerequisites: G.E. 57, 107. 5 s.h. (w) ASSISTANT PROFESSOR PALMER

132. STRUCTURES.—DESIGN.—Tension, compression, flexural members, end posts, eccentric connections, unsymmetrical bending; riveted and welded plate girders; trusses and office building frames; wind analysis. Design and detail drawings. Prerequisite: C.E. 131. 5 s.h. (w) ASSISTANT PROFESSOR PALMER

133. REINFORCED CONCRETE.—Theory and design of reinforced concrete beams, slabs, and columns including eccentric loads; footings; retaining walls. Prerequisite: G.E. 107. 4 s.h. (w) PROFESSOR BIRD

135. SOIL MECHANICS.—Identification and classification; flow nets; frost action; stability of foundations, cuts and embankments, and retaining walls; settlement. Laboratory includes identification, permeability, shear, unconfined compression, consolidation and compaction tests. Prerequisite: G.E. 107. 3 s.h. (w) PROFESSOR BIRD

137-138. SEMINAR.—Students are required to make reports and to talk on current engineering literature or on such other topics as may be assigned. 2 s.h. (w) ASSISTANT PROFESSOR PALMER

[Offered only upon sufficient demand; enrollment limited.]

140. INDETERMINATE STRUCTURES.—Application of least work, slope deflection, moment distribution, and column analogy. Analytic, graphic, and experimental methods are used. Prerequisites: C.E. 131, C.E. 133. 3 s.h. (w) PROFESSOR BIRD

142. HYDRAULIC ENGINEERING.—Static and dynamical principles of fluids applied to specific engineering problems. Effects of gravity, viscosity, compressibility, and surface tension on fluid motion in closed conduits and open channels; surface and form resistance; dimensional analysis and theory of models. Non-uniform flow in open channels. Hydraulic jump, backwater curves. Hydraulic problems of flood control, flood routing. Dam design. Prerequisite: C.E. 128 or M.E. 105. 3 s.h. (w) ASSISTANT PROFESSOR WILLIAMS

[Offered only upon sufficient demand; enrollment limited.]

143-144. PROJECTS IN CIVIL ENGINEERING.—This course may be assigned by the Chairman of the Department to certain seniors who have shown an aptitude for research in one distinct field of civil engineering, in which case it may be substituted for certain general civil engineering courses. 2-6 s.h. (w) STAFF

146. CIVIL ENGINEERING PROBLEMS.—Professional aspects of civil engineering practice. Selected problems in analysis and design, considerations of engineering economy, contracts, specifications, and ethics. Seniors only. 2-3 s.h.

ASSISTANT PROFESSOR PALMER

## ELECTRICAL ENGINEERING

PROFESSOR SEELEY, CHAIRMAN; ASSOCIATE PROFESSORS MEIER AND VAIL; ASSISTANT PROFESSORS EGERTON, KRAYBILL, AND OWEN

51. SURVEY OF ELECTRICAL ENGINEERING.—A course designed to give the student a general survey of the engineering profession, to define the scope of activities of the electrical engineer, and to provide an introduction to engineering problems. One two-hour computation. 1 s.h. (w) ASSISTANT PROFESSOR KRAYBILL

52. ELECTRIC AND MAGNETIC FIELDS.—An introductory course covering a mathematical and physical analysis of energy relations in electrostatic and magnetostatic fields; resistance, capacitance and inductance of systems of conductors; systems of electric and magnetic units. Two recitations and one two-hour computation. Prerequisites: E.E. 51, Mathematics 52. Physics 52, Mathematics 53 concurrently. 3 s.h. (w) ASSOCIATE PROFESSOR VAIL

101-102. CIRCUITS IN ELECTRICAL ENGINEERING.—A two-semester course covering methods of electric and magnetic circuit analysis applicable in all branches of electrical engineering; alternating and direct currents; the algebra of vectors and complex quantities; networks; nonsinusoidal waves; coupled circuits; transients; polyphase circuits; symmetrical components. Prerequisite: E.E. 52, E.E. 107-108 and Mathematics 131 concurrently. 6 s.h. (w) ASSOCIATE PROFESSOR VAIL

105. ELECTRICAL MEASUREMENTS.—A course covering direct-current and low-frequency measurements; the theory, calibration, and use of laboratory standards and of apparatus for the measurement of potential, current, power, and energy; and audio-frequency determination of impedance. Three class sessions and one three-hour laboratory. Prerequisite: EE 52. Mathematics 131 and EE 101 concurrently. 4 s.h. ASSISTANT PROFESSOR OWEN

106. ELECTRON TUBES AND CIRCUITS.—A course covering electronic emission, static and dynamic tube characteristics, rectification, glow-discharge tubes, amplifiers, oscillators, and other typical circuits. Three class sessions and one three-hour laboratory. Prerequisites: E.E. 101, E.E. 105, E.E. 107, E.E. 102 and E.E. 108 concurrently. 4 s.h. (w) ASSISTANT PROFESSOR OWEN

107-108. CIRCUITS LABORATORY.—A two-semester course designed to provide instruction in electrical laboratory techniques and in the preparation of engineering reports, and to provide experimental verification of the theory of course 101-102, with which it should be taken concurrently. One three-hour session. 2 s.h. (w) ASSOCIATE PROFESSOR VAIL AND ASSISTANT PROFESSOR KRAYBILL

123. PRINCIPLES OF ELECTRIC CIRCUITS.—A course designed especially for students in other branches of engineering, covering fundamental electric units and both alternating and direct-current circuits. Three class sessions and one three-hour laboratory. Prerequisites: Mathematics 52 and Physics 52. 4 s.h. (w) ASSISTANT PROFESSORS KRAYBILL AND EGERTON

124. PRINCIPLES OF ELECTRIC MACHINERY.—A course designed especially for students in other branches of engineering, covering the application of the principles of course E.E. 123 to alternating and direct-current machinery and associated apparatus. Three class sessions and one three-hour laboratory. Prerequisite: E.E. 123. 4 s.h. (w) ASSISTANT PROFESSORS KRAYBILL AND EGERTON

148. DIRECT-CURRENT MACHINERY.—A study of the principles which underlie the design and operation of all types of direct-current generators, motors, and associated apparatus. Prerequisites: E.E. 101 and E.E. 107, E.E. 102 and E.E. 108 concurrently. 3 s.h. (w) ASSOCIATE PROFESSOR MEIER

158. **ELECTRIC-POWER SYSTEMS.**—A course providing a brief survey of the electric-power industry followed by a consideration of the economic and engineering features of power plant location and design, and by a study of the apparatus utilized in the generation, transmission and distribution of electric power. Prerequisites: E.E. 148, M.E. 104, and permission of instructor. E.E. 257-258 concurrently. Elective for electrical majors. 3 s.h. (w) PROFESSOR SEELEY

[Offered only upon sufficient demand; enrollment limited.]

159. **TRANSMISSION.**—A development of the theory underlying the transmission of electric energy over conductors at both power and communication frequencies. Two class sessions and one two-hour computation. Prerequisites: E.E. 101-102, E.E. 105, E.E. 106, Mathematics 131. 3 s.h. (w) PROFESSOR SEELEY

161. **HIGH-VOLTAGE PHENOMENA.**—An introductory study of high-voltage phenomena and their engineering applications; behavior of gaps and insulators upon application of power-frequency and impulse voltages; corona; properties of insulating materials; high-voltage measurements; elements of high-voltage design. Two class sessions and one three-hour laboratory. Prerequisites: E.E. 101-102, E.E. 105, E.E. 106, and permission of instructor. Elective for electrical majors. 3 s.h. (w) ASSOCIATE PROFESSOR VAIL

[Offered only upon sufficient demand; enrollment limited.]

163-164. **ELECTRIC MACHINERY LABORATORY.**—A study of the technique of testing electric machines and a thorough analysis of their performance. Concurrent with E.E. 257-258. One three-hour session, for two semesters. 2 s.h. (w) ASSOCIATE PROFESSOR MEIER

165-166. **ELECTRICAL ENGINEERING SEMINAR.**—A course in which seniors are required to present oral reports and dissertations on material appearing in current engineering literature. Juniors may participate, but without credit. 2 s.h. (w) STAFF

171. **FUNDAMENTALS OF ILLUMINATION.**—A course designed to familiarize the student with some of the factors that influence seeing; to provide a working knowledge of lighting language, sources, and measuring techniques; and to acquaint the student with the basic factors involved in recommended lighting practice. Two class sessions and one two-hour computation. Prerequisites: E.E. 101-102 or E.E. 123, and permission of instructor. Elective. 3 s.h. (w) ASSISTANT PROFESSOR KRAYBILL

[Offered only upon sufficient demand; enrollment limited.]

173-174. **PROJECTS IN ELECTRICAL ENGINEERING.**—A course which may be undertaken only by seniors who show special aptitude, or who may have had previous experience directly related to the proposed project. The consent of the Chairman of the Department must be obtained before registering. Elective for electrical majors. 3-6 s.h. (w) STAFF

180. **RADIO-FREQUENCY TRANSMISSION AND PROPAGATION.**—Theory and application of transmission and propagation at high and ultra-high frequencies; impedance-matching elements; coupling devices; cavity resonators; wave guides and antennas. Two class sessions and one three-hour laboratory. Prerequisites: E.E. 159, E.E. 261, and permission of instructor. E.E. 262 concurrently. Elective for electrical majors. 3 s.h. (w) ASSISTANT PROFESSOR OWEN

[Offered only upon sufficient demand; enrollment limited.]

197. **INDUSTRIAL APPLICATIONS OF ELECTRICAL EQUIPMENT.**—A course of lectures, demonstrations, and recitations designed especially for students in other branches of engineering, dealing with the basic principles of utilization of a wide variety of electrical equipment in industrial practice. Emphasis is on industrial control, motor and generator applications, and electronic devices and applications. Prerequisite: E.E. 124 and permission of instructor. Elective for non-electricals. 3 s.h. (w) ASSOCIATE PROFESSOR MEIER

[Offered only upon sufficient demand; enrollment limited.]

198. **INDUSTRIAL CONTROL.**—This course, open only to students majoring in electrical engineering, consists of a study of the electromagnetic and electronic control of electric motors in industrial applications. Prerequisites: E.E. 101-102, E.E. 106, E.E. 148, E.E. 257, and permission of the instructor. E.E. 258 concur-



rently. Elective for electrical majors. 3 s.h. (w) ASSOCIATE PROFESSOR MEIER  
[Offered only upon sufficient demand; enrollment limited.]

257-258. ALTERNATING-CURRENT MACHINERY.—A two-semester course dealing with the theory underlying the design, construction, and operation of synchronous generators, transformers, polyphase induction motors, synchronous motors, single-phase motors of all types, and converters and rectifiers. Prerequisites: E.E. 101-102 and E.E. 148. 6 s.h. (w) ASSOCIATE PROFESSOR MEIER

261. COMMUNICATION ENGINEERING.—An advanced course dealing with the principles underlying radio communication with special emphasis on the development of methods and procedures for the mathematical analysis of electron tube circuits. Included are vacuum tube amplifiers, oscillators, special electron tube circuits, and introduction to pole and zero studies of response and impedance. Three class sessions and one three-hour laboratory. Prerequisites: E.E. 101-102, E.E. 105, E.E. 106, and Mathematics 131. 4 s.h. (w) ASSISTANT PROFESSOR OWEN

262. COMMUNICATION ENGINEERING.—The second half of the course E.E. 261. Included are rectifiers and filters, amplitude and frequency modulation, demodulation, microwave tubes, propagation of radio waves, antennas. Three class sessions and one three-hour laboratory. Prerequisite: E.E. 261. 4 s.h. (w) ASSISTANT PROFESSOR OWEN

263-264. OPERATIONAL CIRCUIT ANALYSIS.—An advanced course covering the mathematical analysis of certain circuits used in electrical engineering, with an introduction to the application of operational calculus to circuit analysis. Prerequisites: E.E. 101-102, Mathematics 131, and permission of instructor. Elective for electrical majors. 6 s.h. (w) PROFESSOR SEELEY  
[Offered only upon sufficient demand; enrollment limited.]

## MECHANICAL ENGINEERING

PROFESSOR R. S. WILBUR, CHAIRMAN; ASSOCIATE PROFESSOR REED; ASSISTANT PROFESSORS ELSEVIER, FULTON, HOLLAND, AND KENYON; MR. L. C. WILBUR

52. KINETICS-MECHANISM.—Motions of particles. Applications of Newton's *Laws of Motion* to motions of rigid bodies. Work, energy, impulse, and momentum. Linkage, cams, gears, trains of mechanism. Three recitations, three laboratory hours. Prerequisites: G.E. 2, G.E. 57, Mathematics 52. 4 s.h. (w) ASSISTANT PROFESSORS FULTON AND HOLLAND AND MR. L. C. WILBUR

53. MATERIALS.—Mechanical properties of materials; elementary metallurgy; heat treatment, properties and selection of iron, steel, copper, brass, aluminum, plastics, and other common materials. Lectures and recitations supplemented with films and demonstrations. Prerequisite: Chemistry 2. 3 s.h. ASSISTANT PROFESSORS ELSEVIER AND FULTON; MR. L. C. WILBUR

57. PROCESSES.—Lectures and recitations covering casting, forging, welding, bending, rolling, drawing, machining, and other common processes. Interchangeable manufacture, metal fits, production methods. Supplemented with films and demonstrations. 2 s.h. ASSISTANT PROFESSOR FULTON; MR. L. C. WILBUR

101-102. ENGINEERING THERMODYNAMICS.—A study of thermodynamic properties and processes of gases, vapor and gas-vapor mixtures; cycles; efficiencies and performance of steam power plant equipment. Three recitations. Prerequisites: Mathematics 52, Physics 52, Chemistry 2. 6 s.h. (w) PROFESSOR R. S. WILBUR AND MR. L. C. WILBUR

103-104. HEAT POWER ENGINEERING.—A short course in engineering thermodynamics with applications to power plant design, for C.E. and E.E. students only. Three recitations. Prerequisites: Chemistry 2, Mathematics 52, Physics 52. 6 s.h. (w) ASSOCIATE PROFESSOR REED, ASSISTANT PROFESSORS FULTON AND KENYON

105. FLUID MECHANICS.—Fluid statics; kinematics of fluid flow; application of fluid dynamics theory to flow through orifices, weirs, and pipes; general prin-



ciples of centrifugal pumps and turbines. Prerequisites: Mathematics 52, Physics 52. 3 s.h. (w)

PROFESSOR WILBUR, ASSISTANT PROFESSOR KENYON AND MR. L. C. WILBUR

106. HEAT TRANSFER.—Conduction, radiation and convection; heat transfer to boiling liquids or condensing vapors; over-all transfer of heat, steady state or variable flow. Applications to heat power, heating and air conditioning, and refrigeration. Prerequisites: M.E. 101 or 103, M.E. 105 or G.E. 128, M.E. 102 or 104 concurrently. May be elected by limited number of C.E. and E.E. students. 3 s.h. (w)

ASSOCIATE PROFESSOR REED

108. AERONAUTICS.—A general course applying fluid mechanics principles to airfoils, propellers, and the complete airplane. Prerequisite: M.E. 105. 3 s.h. (w)

ASSISTANT PROFESSOR ELSEVIER

113-114. JUNIOR MECHANICAL ENGINEERING LABORATORY.—Open only to mechanical engineering students. First semester, three laboratory hours, devoted to experiments and reports in hydraulics, flue gas analyses, calorific value of fuels. Second semester, six laboratory hours, devoted to experiments and reports related to thermodynamics, such as boiler inspection, air compression, injectors, steam and fuel calorimetry. M.E. 101-102 concurrently. 3 s.h. (w)

PROFESSOR R. S. WILBUR AND STAFF

115-116. JUNIOR MECHANICAL ENGINEERING LABORATORY.—Open only to electrical and civil engineering students. Experiments and reports on measuring instruments and apparatus, flow of air, steam and water, economy of boilers, steam and internal combustion engines. Three laboratory hours. M.E. 103-104 concurrently. 2 s.h. (w)

PROFESSOR R. S. WILBUR AND STAFF

150-151. MACHINE DESIGN.—Application of principles of mechanics, strength of materials, constructive processes and engineering drawing to the design of bolted, riveted and welded connections, pressure vessels and machine elements, followed by design of at least one complete machine. M.E. 150 has two recitations and three laboratory hours; M.E. 151 has two recitations and six laboratory hours. Prerequisites: G.E. 107, M.E. 52, M.E. 53, M.E. 57. 7 s.h. (w)

ASSISTANT PROFESSOR HOLLAND

153-154. HEATING, AIR CONDITIONING AND REFRIGERATION.—Determinations of heat losses and gains; design of steam, hot water and warm air heating and air conditioning systems; panel heating. Fundamentals of refrigeration theory and design. Applications of refrigeration to summer and year round air conditioning; commercial and industrial applications of refrigeration. Prerequisite: M.E. 106. M.E. 159-160 concurrently. Two recitations, three laboratory hours. 6 s.h. (w)

ASSOCIATE PROFESSOR REED

155. INTERNAL COMBUSTION ENGINES.—Principal cycles; fuels and fuel mixtures; effect of real mixtures on theoretical cycles; combustion; carburetion and fuel injection. Thermodynamic analysis of engine performance. Modern developments in the internal combustion engine. Three recitations. Prerequisite: M.E. 101-102. 3 s.h. (w)

ASSISTANT PROFESSOR ELSEVIER

157. CENTRIFUGAL PUMPS AND BLOWERS.—A study of the basic principles of design, construction and application of centrifugal pumps and blowers. May be elected by a limited number of mechanical engineering seniors with consent of Chairman of Department. Prerequisite: M.E. 105. 3 s.h. (w)

ASSISTANT PROFESSOR FULTON

[Offered only upon sufficient demand; enrollment limited.]

158. INDUSTRIAL ENGINEERING.—A study of the industrial growth and present tendencies of productive industries as concerns the engineer. Specific topics treated are: plant location, organization, production and cost controls, wage payment, etc. *Seniors only*. Three recitations. 3 s.h. (w)

ASSISTANT PROFESSORS KENYON AND LEWIS

159. SENIOR MECHANICAL ENGINEERING LABORATORY.—Tests and reports on performance and economy of internal combustion engines, steam engines

and turbines; heat transfer, radiator tests, and energy balances. Required of all seniors in mechanical engineering. Six laboratory hours. Prerequisite: M.E. 114, M.E. 153 concurrently. 2 s.h. (w) PROFESSOR R. S. WILBUR AND STAFF

160. SENIOR MECHANICAL ENGINEERING LABORATORY.—Required of all seniors in mechanical engineering. Tests and reports on boiler, engine, turbine, condenser and accessories; heat transfer; refrigeration equipment. Six laboratory hours. Prerequisite: M.E. 159. M.E. 154 and M.E. 162 concurrently. 2 s.h. (w) PROFESSOR R. S. WILBUR AND STAFF

162. POWER PLANT CALCULATIONS.—Study of economic and engineering factors in developing steam power plants. Consideration of the performance of boilers, prime movers, condensers and various auxiliaries in various groupings as they affect the plant heat balance. May be elected by a limited number of C.E. or E.E. students. Three recitations. Prerequisite: M.E. 102 or 104. M.E. 160 concurrently. 3 s.h. (w) PROFESSOR R. S. WILBUR

164. ENGINEERING ANALYSIS.—A study of a series of engineering problems with particular reference to mathematical and graphical methods of solution and engineering interpretation of results. 3 s.h. (w) MR. L. C. WILBUR  
[Offered only upon sufficient demand; enrollment limited.]

166. AIR-CONDITIONING DESIGN.—Analysis of air-conditioning requirements, summer and winter, commercial and industrial. Design of systems and units, and selection of equipment. Open to seniors who have completed M.E. 153. 3 s.h. (w) ASSOCIATE PROFESSOR REED  
[Offered only upon sufficient demand; enrollment limited.]

197-198. PROJECTS IN MECHANICAL ENGINEERING.—This course may be assigned by the Chairman of the Department to certain seniors who express a desire for such work and who have shown aptitude for research in one distinct field of mechanical engineering. Elective credit for either semester. 3-6 s.h. (w) PROFESSOR R. S. WILBUR AND STAFF

## GENERAL ENGINEERING

### STAFF

1. ENGINEERING DRAWING.—The study of mechanical drawing with emphasis on third angle projection, pictorial drawing, dimensioning, working drawings, pencil and ink techniques. 2 s.h. (w) STAFF

2. DESCRIPTIVE GEOMETRY.—A study of drawing board geometry with emphasis on line and plane problems, developments, and intersections. Further emphasis on drawing techniques. Prerequisite: G.E. 1. 2 s.h. (w) STAFF

57. STATICS.—Concurrent forces, parallel forces, nonconcurrent and nonparallel forces, centroids, friction, moment of inertia. Prerequisite: G.E. 1. Mathematics 52 concurrently. 3 s.h. (w) STAFF

58. DYNAMICS.—Translation, rotation, work, energy, and momentum. Prerequisites: G.E. 57 and Mathematics 52. 3 s.h. (w) STAFF

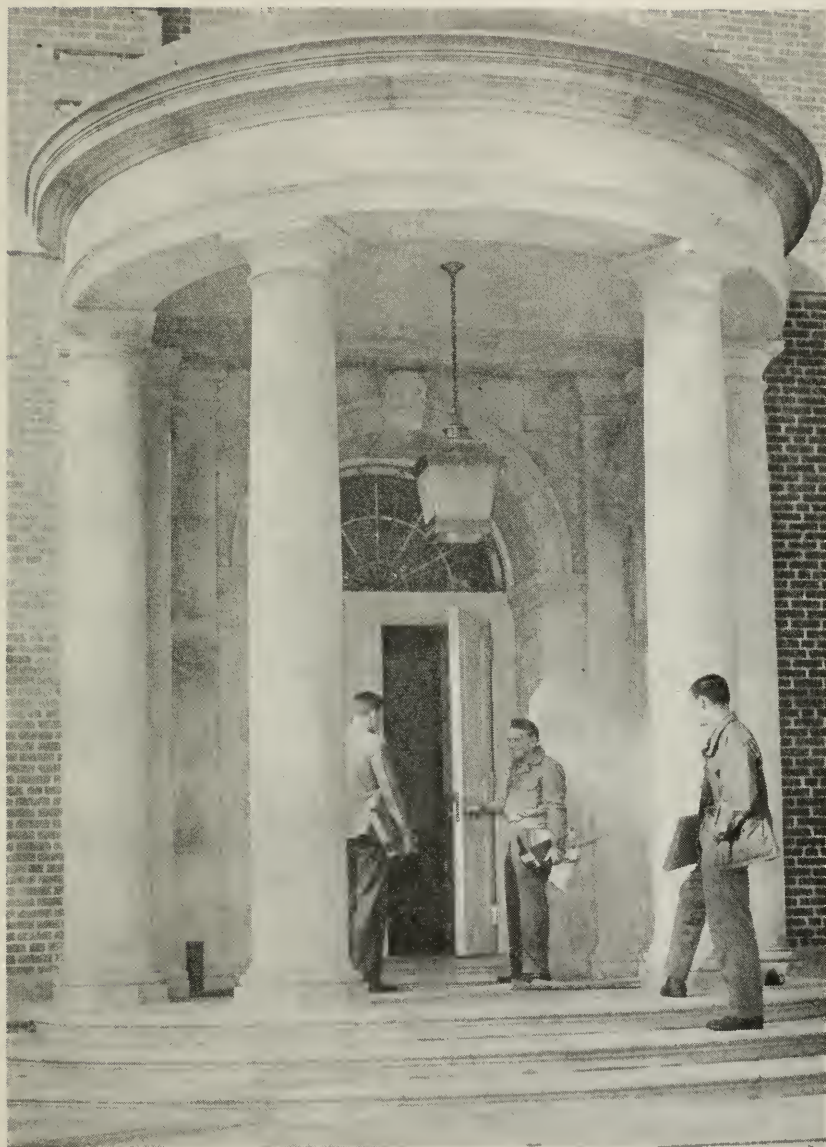
101. CONSTRUCTION METHODS.—Principles of scientific management as set forth by Gilbreth and Taylor; selection of materials and accumulation of cost data; use of modern equipment and methods; job design, description, selection and placement of personnel. Prerequisite: Junior standing. 3 s.h. (w) STAFF  
[Offered only upon sufficient demand; enrollment limited.]

102. MOTION AND TIME STUDY.—Fundamentals of stop-watch time study; effort (tempo) rating; uses of time study, and relationships between time study, motion study, and wage incentives; micromotion study; motion economy principles and their applications; standard data—derivation and application. Prerequisite: Junior standing. 3 s.h. (w) STAFF  
[Offered only upon sufficient demand; enrollment limited.]

107. **STRENGTH OF MATERIALS.**—Elastic bodies under stress; flexure of simple, overhanging, fixed, and continuous beams; columns; combined stresses, etc. For Civil Engineering students, the laboratory work is included in course C.E. 118. Other students should take course G.E. 109 for laboratory. Prerequisites: G.E. 57, Mathematics 52. 3 s.h. (w) STAFF

109. **STRENGTH OF MATERIALS LABORATORY.**—Study and use of testing machines and strain gages. Tests to determine significant physical properties of the common engineering materials. Experimental verification of the elementary theory of structural members. Must be preceded or accompanied by G.E. 107. 1 s.h. STAFF

128. **HYDRAULICS.**—Elementary principles of hydromechanics. Application to engineering problems of hydrostatics and of the principles of energy, continuity, and momentum relating to flow. The effects of gravity and viscosity on fluid motion. Dimensional analysis and dynamic similarity; hydraulic measuring devices; steady flow in closed conduits and in open channels. Prerequisite: G.E. 58 or M.E. 52. 3 s.h. STAFF



THE COLLEGE OF ENGINEERING



# Student Life and Activities



**CONDUCT AND DISCIPLINE:** The University expects of its students loyal and hearty cooperation in developing and maintaining high standards of conduct as well as of scholarship. The University therefore reserves the right, and matriculation by the student is a concession of this right, to ask the withdrawal of any student whose conduct at any time is not satisfactory to the University, even though no specific charge be made against the student.

General oversight of the conduct of students and the administering of discipline are under the supervision of the Vice-President in the Division of Student Life. The duty of immediate supervision, guidance, and control of the students in each college is entrusted to the dean of that college. However, through the expressed willingness of the students of the University to assume the responsibility of maintaining high standards of morals and honor, the student body has properly become to a great degree self-governing. Two councils, one of men and the other of women, each composed of duly elected representatives of the student body, exercise the authority granted the students for their respective colleges to investigate all cases of misconduct, as well as all other cases of violation of proper student standards and traditions, and to make recommendations of penalties based on their findings.

The student councils have been helpful to the administrative authorities of the University. They exert a guiding and stimulating influence for the promotion of high ideals of conduct and of student relationships.

**ASSEMBLY AND CLASS MEETINGS:** The sophomore, junior and senior classes of Trinity College and the College of Engineering meet on call to discuss matters pertinent to the individual group. The freshman classes of these colleges hold weekly meetings with compulsory attendance.

In the Woman's College an assembly of all students is held on the first, second, and fifth Monday evenings; house meetings are held on third Monday evenings; and class meetings, with the exception of the freshman class, are held on fourth Monday evenings. The freshman meet as a class each week. In each instance, attendance is required.

**AUTOMOBILE REGULATIONS:** Freshmen are not permitted to own or operate motor vehicles at the University. Members of other classes in Trinity College and the College of Engineering are permitted



to operate motor vehicles provided they are registered and operated in accordance with University regulations; under the same conditions seniors in the Woman's College may use cars.

**SCHOLASTIC REGULATIONS FOR PARTICIPATION IN ATHLETIC AND OTHER ACTIVITIES:** A student who receives less than a passing grade on more than six hours of his required work of the preceding term is ineligible to represent the University in any athletic contest, concert, or other public event.

Members of athletic teams or other student groups engaging in public representation of the University are expected to be carrying their current work satisfactorily. A student may be barred from participation in such representation if, in the opinion of the dean, he fails to meet this requirement.

**RELIGIOUS LIFE:** "Eruditio et Religio," the motto emblazoned on the seal of the University, proclaims belief in the essential union of knowledge and religion in the educational process. Provisions, both academic and extra-curricular, are made for the realization of this aim. Academic offerings in the field of Religion are described elsewhere in this catalog. The description below concerns non-academic provisions.

The gothic Chapel stands at the center of the campus, an inspiring symbol of the place of religion in the well-balanced life. This is the home of the Duke University Church, Interdenominational. The Church encourages the cultivation of the spiritual and moral life of students through participation in a program of varied activities.

The Service of Worship on Sunday morning has special appeal. Several hundred students participate in these services by singing in the choir, which has gained national reputation. At least one hundred other students assist in special ways, as ushers, collectors, and at communion services. Hundreds come to worship and are inspired by the beauty and challenge of these services.

But the Church also encourages the students to translate their worship into effective Christian living. A rich program of activities is offered, so that every student can find something that will challenge his interests and meet his needs as an active member of his faith.

These activities are developed along three lines: interfaith, interdenominational, and denominational. Protestant, Jewish, and Roman Catholic students are organized into their respective groups; but periodically they join together in interfaith programs which are carefully planned to respect the traditions of the various faiths. Interdenominational activities for all Protestant students are emphasized because it is believed that a more complete Christian faith is developed through sharing knowledge and fellowship with Christians of other churches.

Vital to the religious life at Duke are the various church groups known on the campus as the Protestant Denominational Groups. The Church looks to these organizations, under the leadership of their respective chaplains or advisers, to provide a continuing denominational experience through worship, study, service activities, and recreation. The promotion of churchmanship as a part of the total educational experience at Duke is designed to equip students to assume the role of leaders in their local church when they leave the University.

Additional features of the program are the organ recitals and special musical services which are given from time to time on Sunday afternoons in the Chapel. During the summer, carillon recitals are presented twice a week.

The total religious program is under the direction of the Official Board of the Church, composed of an equal number of faculty-staff members and students. Professional guidance is given by the Preachers to the University, the Chaplain to the University, the Choir Director and the Organist, the Directors of Student Religious Life, and the denominational Chaplains.

**PUBLIC LECTURES AND SOCIAL FUNCTIONS:** The Faculty Council on Public Lectures supervises all public lectures, addresses, and other public events given under the auspices of the University or of any organization in any way connected with the University. All dates and programs must be approved by the Council, which prepares an official yearly calendar. Current announcements of public occasions appear in the Weekly Calendar of Duke University issued by the Department of Alumni Affairs.

A social committee composed of students and staff members from the three colleges exercises general supervision over major social functions. The executive offices of the committee are the Dean of Men and the Dean of Undergraduate Women of the Woman's College.

**MEDICAL CARE:** With the exceptions noted below, full medical and surgical care is furnished to all regularly matriculated students of the University. The cost is included in the general fee paid each semester and in the fees charged each student in the summer quarter.\*

The service is under the direction of the University Physician with the cooperation of the Staffs of the Infirmaries (one on each campus) and the University Hospital. It includes hospitalization in Duke Hospital, as deemed necessary by the Hospital Staff but limited to thirty days; medical and surgical care under the supervision of a senior physician or surgeon; drugs, X-ray work, and ward nursing. Special nursing is not covered. \*The student pays for his board while in the hospital. Refraction of eyes, treatment of teeth and of all chronic

\* Only those students who have paid the fee for the semester, quarter or summer session during which illness occurs are entitled to the services described herein.

and pre-existing conditions, such as diseased tonsils, hernias, pilonidal cysts and other elective surgery, chronic skin conditions, endocrine disturbances, etc., and accidents or illnesses occurring during vacations or while off the campus, are not included in this service. The cost of any necessary braces and orthopaedic appliances, as well as of special nursing, must be borne by the student and blood used for transfusions must be paid for or replaced. If the student has insurance providing hospitalization, surgical, or medical benefits, the benefits shall be applied to the cost of his medical care.

Advisory consultation with a Psychiatrist is available to the Deans and to Student Health physicians at no expense to the student but office visits for psychotherapeutic interviews cannot be included in this service.

A woman physician is in residence and a nurse in constant attendance at the Woman's College Infirmary. Patients in this Infirmary can be transferred to the Duke Hospital at any hour of the day or night. Male students receive ambulant care at the student health office in the hospital building during dispensary hours. Men are admitted to the hospital directly whenever necessary. The emergency service and the specialist consulting services of the Hospital and Medical School are always available.

When the student comes to the University, he is given a careful physical examination. Any physical defects are recorded along with the record of the questionnaire from the family physician. All students are requested to be successfully vaccinated against smallpox before admission to the University. It is urgently advised that they take typhoid vaccine if they have not done so within three years, and that all male undergraduates be actively immunized to tetanus by injections of toxoid.

**PHYSICAL EDUCATION:** Students of Trinity College and the College of Engineering are required to engage in some type of physical activity for two years or four full semesters. This work consists of participation in natural, practical, physical activity for at least three one-hour periods each week. The purpose is to improve body control and strength through big muscle activities, to stimulate the development of mental and physical alertness, to establish habits of regular exercise, and to give training and experience in various kinds of recreational sports that will be indulged in after the student is graduated from the University.

Intramural sports are promoted and fostered in all phases of athletic activity. Meets, tournaments, and leagues are seasonally organized in the different sports. All students of the two colleges are eligible to enjoy the intramural privileges, provided they comply with the intramural rulings. Participation in these activities is entirely volun-

tary, but they are very popular because they provide an opportunity for every man to enter into competition and recreation in those sports which he enjoys most.

The work of the Physical Education Department of the Woman's College is designed in part to give the students of that college an appreciation of the value of activity for general physical well-being, skill in one or more activities which can be enjoyed as recreation during and after college, a well-developed and well-coordinated body, and a knowledge of good posture and efficient handling of the body in everyday activities. To this end, students are allowed to choose from a large number of activities including individual, dual, and team sports, swimming, and several types of dancing. In order to insure a variety of skills, each student, during her three years of required physical education, must elect one semester's work in each of the following types of activity: individual or dual sports, and dance. All students who are unable to pass the swimming test must take one semester of swimming before graduation. In addition to the two hours per week of activity classes, all freshmen are required to take a course in orientation in physical education and body mechanics, meeting once a week during the first semester.

The Dance Group, the Swimming Club, and the Woman's Athletic Association give opportunities for all students to take part in the types of intramural activities most interesting to them. The swimming pool, tennis courts, and other athletic equipment are available to all students for use at specified times.

In order to meet certain hygienic aspects of physical education and intramural athletics, the University has made available for all students, in addition to facilities for physical activity and recreation, the following equipment and services:

1. (a) MEN. A regulation uniform: shirt, trunks, supporter, socks, sweat clothes, and towel.
- (b) WOMEN. Gym suit, dance costume, bathing suit, warm-up suit.
2. Provision for locker and handling of uniform.
3. The laundering of uniform and towel as needed.

The privileges and services listed above are available to all students who pay full fees, as long as they comply with the rules and regulations established for the care and handling of the equipment.

**THE INTERCOLLEGIATE ATHLETIC PROGRAM:** The program, controlled entirely by the University, consists of the organization and training of representative freshman and varsity teams in football, basketball, baseball, track, cross country, swimming, lacrosse, wrestling, tennis, and golf.

The program is under the supervision of the Athletic Council, composed of seven members. Three of the seven are appointed from



the faculty as follows: one member from the Officers of General Administration, one from the Officers of Educational Administration, division of the Colleges, and one from the Officers of Instruction of the undergraduate colleges. From this group the President of the University appoints the faculty chairman, who serves as chairman of the Athletic Council and of its executive committee.

Four of the seven members are selected from the alumni. One of the four, a University Trustee, an alumnus, and a member of the Board's standing Committee on Physical Education and Athletics, is appointed not less frequently than every three years by the chairman of the Board of Trustees. The remaining three, who may not succeed themselves, are elected annually by the general Alumni Association for terms of three years. The Director of Alumni Affairs serves *ex officio* as secretary of the Council and of the executive committee.

The three faculty members of the Athletic Council constitute a committee which alone has the responsibility of enforcing the scholarship and athletic requirements of the University for participation in intercollegiate sports. The athletic eligibility rules are those of the Southern Conference.

The executive committee of the Athletic Council is composed of the faculty chairman of the Council, one other faculty member of the Council and one alumni member of the Council. The executive committee of the Council recommends to the President of the University persons to serve as Director of Athletics and as coaches in the various sports. The election of such persons, however, rests solely with the Board of Trustees of the University or with its Executive Committee on recommendation of the President of the University. The executive committee of the Council recommends to the Athletic Council athletic schedules and the award of insignia of merit earned by members of the athletic teams. However, decisions with respect to the same rest solely with the Athletic Council subject to approval of the President.

Each of the four undergraduate classes selects annually, for terms of one year, a member of each respective class to serve in an advisory capacity to the Athletic Council upon call of the faculty chairman on the matter of awarding insignia of merit.

All funds arising from athletics are handled entirely by the Treasurer of the University. An audit of the receipts and disbursements of these funds is made annually by the official auditors of the University and a report thereof made annually to the Executive Committee of the Board of Trustees.

**THE STUDENT ACTIVITIES OFFICES:** The Student Activities Offices were established for the purpose of assisting and coordinating the financial activities of the various student organizations in Trinity College, the College of Engineering, and the Woman's College.



The Offices provide for student organizations a banking service through the office of the Treasurer of the University. They also afford auditing services for organizations requiring it. Permanent records of all financial activities of organizations are kept under the supervision of the Offices. The Student Activities Offices, cooperating with the University Purchasing Department, also serve in the capacity of purchasing agent for affiliated student organizations. There is no charge for this service.

In addition to these specific services, the purpose of the Office is to promote well-organized and effective extracurricular interest.

Student Activities Offices for Trinity College and the College of Engineering are located on the West Campus, and for the Woman's College, on the East Campus.

**STUDENT PUBLICATIONS:** Student publications of the University are under the control of a Publications Board, which is constituted as follows: three members from the University staff and two from the alumni, appointed by the President; six men from the junior and senior classes, elected by the students in Trinity College and the College of Engineering; four women from the junior and senior classes, elected by the students in the Woman's College; and three editors and three managers of student publications, *ex officio* members without voting power. No student publications can be started at the University without the approval of the Council.

The three publications of campus-wide interest are the *Archive* (monthly); the *Chanticleer* (annual); the *Chronicle* (weekly). The Engineering students issue a professional bimonthly magazine, the *DukEngineer*.

**STUDENT BROADCASTING SYSTEM:** The student broadcasting system of the University is under the control of a Radio Council, which is constituted as follows: two members from the University staff, appointed by the President; three members from the faculty who serve as engineering, production, and business advisers; three men from the junior and senior classes, including one engineer, elected by the students in Trinity College and the College of Engineering; one woman from either the junior or senior class, elected by the students of the Woman's College; one man from either the junior or senior class, elected by the members of the Student Legislature of the Men's Student Government Association from within the membership of that body; one woman from either the junior or senior class, elected by the members of the Woman's Student Government Association from within the membership of that body; and four student managers of the student broadcasting system, *ex officio* members without voting power.

**STUDENT ORGANIZATIONS:** The following organizations are active on the campus: *The Men's Association of Duke University* com-

prises all men students in Trinity College and the College of Engineering. Through its officers and a council it initiates policies and oversees matters within the control of the student body. The council is composed of nine members: three executive officers, two representatives from the senior class, two from the junior class, one from the sophomore class, and one from the College of Engineering.

*The Woman's Student Government Association* is similar in character to the men's association. Its council is composed of the officers of the Association, house presidents and president of the Town Girls' Club, class representatives, and chairman of the Freshman Advisory Council, *ex officio*.

*The Young Men's Christian Association* and the *Young Women's Christian Association* are branches of the national student Christian Associations. Each body aims to enrich not only the religious life of its members as individuals but also to promote religious group activity. These organizations carry on extensive activity in the fields of social service, faculty-student relations, forums, and other related projects. Membership in the Student Religious Council relates these organizations to the total religious activities program of the Duke University Church, Interdenominational.

Other organizations and activities include the following: Air Force Club; Arnold Air Society; Bench and Bar Society (Pre-Legal Undergraduates); Class of 1953; Class of 1954; Class of 1955; Class of 1956; Classical Club (Men); Club Panamericano; Commodore Club (N.R.O.T.C. Social Organization); Debate Council (Men); Duke-Charlotte Club; Duke Independent Society (Men); Duke Masonic Club; Duke Players; Duke Square Dance Club; Duke University Church (Interdenominational); Duke University Handbook, and Directory; Duke University Steering Committee; Engineers' Club; G. O. Politan Club; Graduate Club; Hoof 'n' Horn; Interfraternity Council; Intramural Athletic Department; Men's Freshman Advisory Council; Pegram Chemistry Club; Pep Board; Photography Club; Pre-Medical Society; Publications Board; Quadrangle Pictures; Shoe and Slipper Club; Spring Frolic Fund; Student Religious Council; Town Boys' Club; Town Girls' Club; Woman's College Student Forum; Women's Athletic Association; Women's Freshman Advisory Council; Women's Pan-Hellenic Council; Young Democrats Club; and the Campus Chest Fund.

The following honorary orders and fraternities have chapters on the campus: National—Alpha Kappa Psi (Economics); Alpha Phi Omega (Scouting); Chi Delta Phi (Literary); Delta Phi Alpha (German); Eta Sigma Phi (Classics); Kappa Chi (Pre-Ministerial); Kappa Delta Pi (Educational); Mu Sigma (Psychology); Omicron Delta Kappa (Leadership—Men); Phi Beta Kappa (Scholarship); Phi Eta Sigma (Freshman Scholarship—Men); Phi Sigma (Biology);

Pi Gamma Mu (Social Science); Pi Mu Epsilon (Mathematics); Sigma Delta Pi (Spanish); Sigma Pi Sigma (Physics); Sigma Xi (Science); Tau Kappa Alpha (Forensic); Tau Psi Omega (French); Theta Alpha Phi (Dramatic).

Local—Beta Omega Sigma (Leadership—Sophomore Men); Delta Phi Rho Alpha (Athletic—Women); Ivy (Scholarship—Freshmen Women); Mu Sigma (Psychology); Phi Kappa Delta (Leadership—Women); Red Friars (Leadership—Senior Men); Sandals (Leadership—Sophomore Women); Varsity “D” Club (Athletic—Men); White Duchy (Leadership—Senior Women).

Engineering (Professional)—American Institute of Electrical Engineers; the American Society of Civil Engineers; and the American Society of Mechanical Engineers. Engineering (Honorary)—Tau Beta Pi (National Honorary Engineering Fraternity); Eta Kappa Nu (Electrical Engineering National Honorary Society); Pi Tau Sigma (Mechanical Engineering National Honorary Society); Order of St. Patrick (Leadership).

Local musical organizations available to qualified members are: Chamber Orchestra; Concert Band; Madrigal Singers; Marching Band; Men’s Glee Club; Music Study Club; Symphony Orchestra; University Chapel Choir; Women’s Glee Club.

The following national social fraternities have chapters on the campus: Alpha Tau Omega; Beta Theta Pi; Delta Sigma Phi; Delta Tau Delta; Kappa Alpha; Kappa Sigma; Lambda Chi Alpha; Phi Delta Theta; Phi Kappa Psi; Phi Kappa Sigma; Pi Kappa Alpha; Pi Kappa Phi; Sigma Alpha Epsilon; Sigma Chi; Sigma Nu; Sigma Phi Epsilon; Tau Epsilon Phi; Theta Chi; Zeta Beta Tau.

The following national social sororities have chapters on the campus: Alpha Chi Omega; Alpha Delta Pi; Alpha Phi; Alpha Epsilon Phi; Delta Delta Delta; Delta Gamma; Kappa Alpha Theta; Kappa Delta; Kappa Kappa Gamma; Phi Mu; Pi Beta Phi; Sigma Kappa; Zeta Tau Alpha.

# Honors and Prizes



**HONORS:** To be eligible for Honors a student must earn, during the year, credit for at least the normal load of the college in which he is registered. All semester hours on which a student receives a grade are counted in the determination of Honors. Students in the freshman, sophomore, and junior classes who earn an average of at least two and one-half quality points per semester hour are given Honors.

The degree of Bachelor of Arts or of Bachelor of Science with distinction is conferred in accordance with the following rules:

To be eligible for general Honors at graduation a student must have completed in residence a minimum of ninety semester hours. Those students who earn an average of at least two and one-half quality points per semester hour are recommended for a degree *magna cum laude*. Those who earn an average of at least two and three-fourths quality points per semester hour are recommended for a degree *summa cum laude*.

**MEDALS AND PRIZES:** *The Wiley Gray Medal* was established by the late Robert T. Gray, Esq., of Raleigh, North Carolina, to be awarded annually in memory of his brother. It is given for the graduating oration that shall be, in the opinion of a committee, the best, with respect to both declaration and composition.

*The Debate Council* authorizes the awarding of medals to members of the graduating class who have represented the University in at least two intercollegiate debates. The medals are given by the local chapter of the Tau Kappa Alpha Fraternity.

*The Robert E. Lee Prize* is the gift of The Reverend A. W. Plyler, of the Class of 1892, and Mrs. Plyler. The sum of \$50 is awarded annually at Commencement, preferably to that member of the senior class who, in character and conduct, in scholarship and athletic achievement, in manly virtues and capacity for leadership, has most nearly realized the standards of the ideal student. The dean of the college, the Graduate Manager of Athletics, and the President of the Student Council constitute a committee to draft and adopt regulations governing the award.

*Alpha Kappa Psi Medallion.* Beta Eta Chapter of Alpha Kappa Psi, a professional fraternity in commerce, awards annually the Alpha Kappa Psi Scholarship Key to the male senior student pursuing a degree in the Department of Economics and Business Administration

who has attained the highest scholastic average for three years of collegiate work in this University.

*Medal of the North Carolina Association of Certified Public Accountants.* The North Carolina Association of Certified Public Accountants annually awards a medal to the senior who, in the judgment of his instructors, is the most outstanding student in accounting in his graduating class.

*Julia Dale Prize in Mathematics.* This is a prize of books given annually to the undergraduate who shows the greatest proficiency in the study of the calculus.

*The Milmow Prize,* consisting of one year's subscription to the *Electrical World*, is awarded each year to that student from North or South Carolina graduating in the Department of Electrical Engineering who, in the opinion of the faculty of that department and as shown by his grades, has made the most progress in electrical engineering during his last year in college.

*The Tau Beta Pi Prize.* The North Carolina Gamma chapter of Tau Beta Pi, national honorary engineering fraternity, awards each year a suitable prize, such as an engineering handbook, to a sophomore student in engineering for outstanding scholastic achievement during the freshman year.

*The Phi Lambda Upsilon Prize.* Phi Lambda Upsilon, honorary chemical society, yearly awards a suitable prize to an outstanding junior who is majoring in chemistry. The recipient's name is inscribed on a plaque displayed in the Chemistry Library.

*The Pegram Chemistry Club Prize* is awarded in the spring of each year for scholarship in chemistry, physics, and mathematics. The prize consists of a one-year junior membership in the American Chemical Society and a one-year subscription to either the *Journal of the American Chemical Society* or *Industrial and Engineering Chemistry*. To qualify for this prize, the student must (1) be enrolled as an undergraduate of Duke University and (2) be taking or have taken a fourth-year chemistry course. The winner of this prize is selected by a committee consisting of at least one faculty member and at least two members of the Pegram Chemistry Club; the selection is based on the quality-point average for all courses taken in chemistry, physics, and mathematics. In case of a tie equal awards are given.

*The Sigma Xi Prize.* The Society of the Sigma Xi, honorary scientific society, is devoted to the encouragement of scientific research, and seeks to stimulate those who show promise of accomplishment in scientific research. As an encouragement to younger men and women the Duke Chapter of Sigma Xi has established the following prizes to be awarded annually to students resident at Duke University: \$20.00 for an undergraduate project or paper, \$20.00 for a Master's thesis or its equivalent, and \$40.00 for a Ph.D. dissertation or its



equivalent. Nominations, recommendations, copies of theses, reports or other material must be in the hands of the Secretary of the Chapter on or before May 5.

*The Erasmus Club Prize in the Humanities.* The Erasmus Club, founded in 1925, a group of Duke faculty members interested in research in language, literature, and the arts, seeks to stimulate interest and study in these fields. To encourage Duke students in this field, the Erasmus Club has established an annual prize amounting to \$25.00, for the best original essay by an undergraduate which embodies the results of research, criticism, or evaluation in some subject in the humanities. Prospective competitors should consult some member of the faculty, preferably their major professor. Essays must be type-written and must be submitted to the president of the club before the first of April. The club reserves the right to withhold the prize in case there are no essays of acceptable quality.

*The Anne Flexner Memorial Award in Creative Writing* has been established by the friends of the family of Anne Flexner, who graduated from Duke in 1945. It consists of fifty dollars in cash and a book bearing the Anne Flexner Memorial Award bookplate. It is given annually for the best pieces of creative writing submitted by a Duke undergraduate. It is limited to short stories (5,000-word limit), one-act plays (5,000-word limit), poems (100-line limit), and informal essays (3,000-word limit). Only one manuscript may be submitted by a candidate, and manuscripts must be delivered to the English Office, Room 2G5, West Duke, before April 15.

*The William Senhauser Prize* is given by his mother in memory of her son, a member of the Class of 1942, who lost his life in the Pacific Theatre of War on August 4, 1944. The award is made annually to the sophomore or junior in Trinity College or the College of Engineering who has made the greatest contribution through participation and leadership in intramural sports. The winner of this prize is chosen by a committee selected by the President of the University.

The *Friends of Duke University Library* offer three prizes of \$25.00, \$15.00, and \$10.00, in an annual contest open to all undergraduate students for the best book collections acquired during their college years. The contest is supervised by the Undergraduate Committee of the Friends of the Library, which announces each fall the terms of the award. Inquiries may be directed to the Curator of Rare Books. Collections entered in the contest are exhibited each spring in the General Library, and the prizes are awarded on the basis of the student's collection and a personal interview to determine the overall planning and objectives of his collecting activity, and his familiarity with his own books and the general field of his collecting interest.

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**BULLETIN**  
**OF**  
**DUKE UNIVERSITY**



**The School of Law**

**ANNOUNCEMENTS FOR 1953-1954**

**VOLUME 25**

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**NUMBER 6**



# Annual Bulletins

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For BULLETIN OF UNDERGRADUATE INSTRUCTION, apply to *The Secretary*, Duke University, Durham, N. C.

For BULLETIN OF THE COLLEGE OF ENGINEERING, apply to *The Secretary*, Duke University, Durham, N. C.

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THE SCHOOL OF LAW

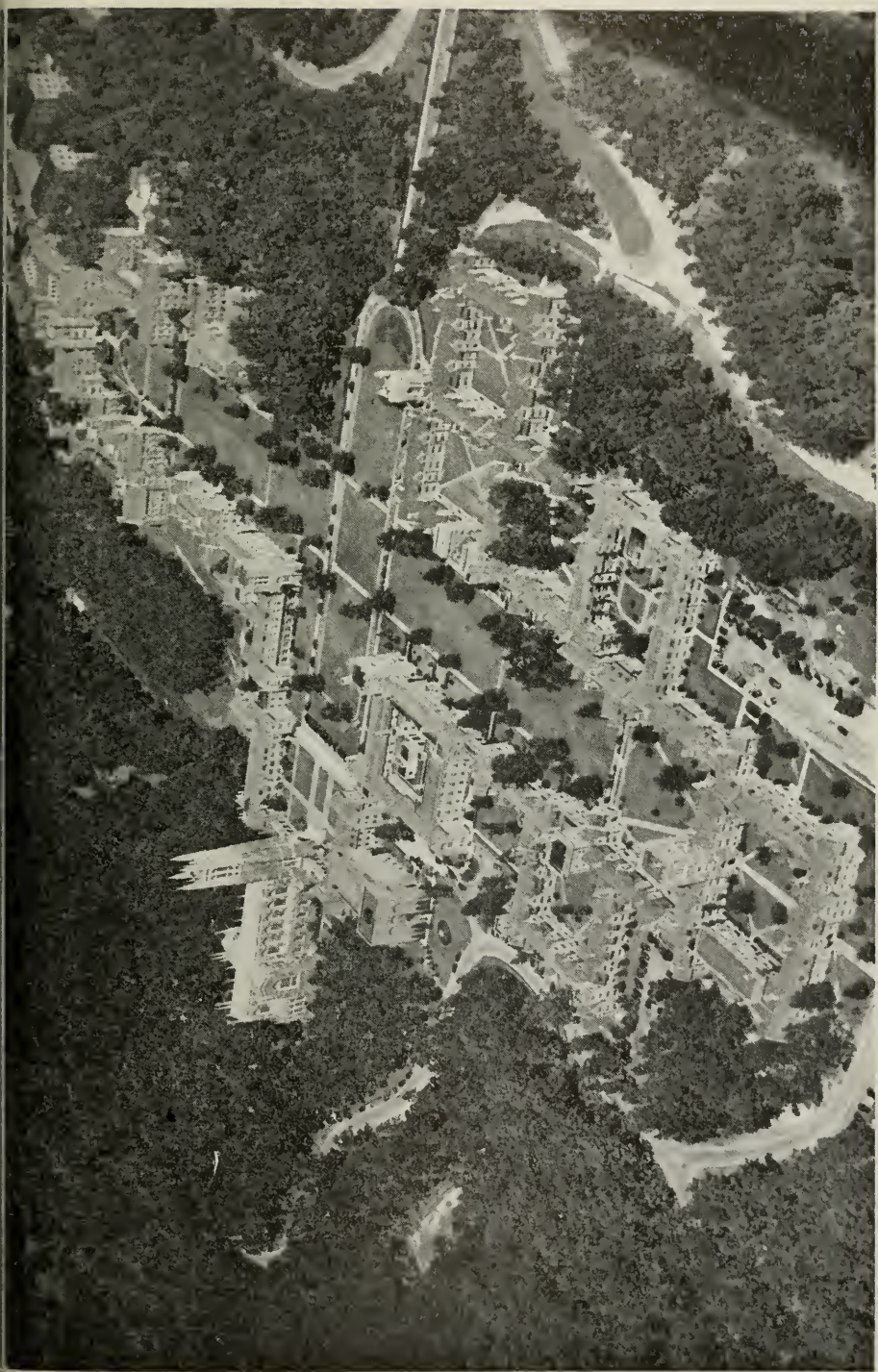


ANNOUNCEMENTS FOR 1953-1954

DURHAM, NORTH CAROLINA

1953





UNIVERSITY OF WEST CAMPUS

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# Calendar 1953-1954



1953

- Sept. 16 Wednesday—Registration.  
Sept. 17 Thursday—Classes begin, 9 A.M.  
Nov. 26 Thursday—Thanksgiving day: a holiday.  
Dec. 19 Saturday—Christmas recess begins, 1 P.M.

1954

- Jan. 4 Monday—Classes resumed, 9 A.M.  
Jan. 16 Saturday—Fall semester classes end, 1 P.M.  
Jan. 18 Monday—Mid-year examinations begin.  
Jan. 27 Wednesday—Mid-year examinations end.  
Feb. 1 Monday—Spring semester classes begin, 9 A.M.  
March 27 Saturday—Spring vacation begins, 1 P.M.  
April 5 Monday—Classes resumed, 9 A.M.  
May 22 Saturday—Spring semester classes end, 1 P.M.  
May 24 Monday—Final examinations begin.  
June 2 Wednesday—Final examinations end.  
June 5 Saturday—Commencement begins.  
June 7 Monday—Graduating exercises.

# Officers of Administration



ARTHUR HOLLIS EDENS, B.Ph., A.M., M.P.A., Ph.D., LL.D. <i>President of the University</i>	West Campus
WILLIAM HANE WANNAMAKER, A.B., A.M., Litt.D. <i>Vice-Chancellor of the University</i>	West Campus
PAUL MAGNUS GROSS, B.S., A.M., Ph.D. <i>Vice-President in the Division of Education and Dean of the University</i>	Hope Valley
CHARLES EDWARD JORDAN, A.B., LL.D. <i>Vice-President in the Division of Public Relations and Secretary of the University</i>	813 Vickers Avenue
HERBERT JAMES HERRING, A.B., A.M., LL.D. <i>Vice-President in the Division of Student Life and Dean of Trinity College</i>	Myrtle Drive
ALFRED SMITH BROWER, A.B. <i>Business Manager and Comptroller</i>	614 West Campus
CHARLES BLACKWELL MARKHAM, A.B., A.M. <i>Treasurer of the University</i>	204 Dillard Street

## LAW SCHOOL COMMITTEE OF THE BOARD OF TRUSTEES

- B. S. WOMBLE, Winston-Salem, North Carolina
- S. S. ALDERMAN, Washington, D. C.
- R. G. CHERRY, Gastonia, North Carolina
- N. A. COCKE, Charlotte, North Carolina
- J. P. FRIZZELLE, Snow Hill, North Carolina

# Faculty



JOSEPH A. MCCLAIN, JR., A.B., LL.B., J.S.D., LL.D., *Dean and Professor of Law.*

A.B. 1925, LL.B. 1924, LL.D. 1941, Mercer University; J.S.D. 1929, Yale University; LL.D. 1944, Tulane University; Practice, Columbus, Georgia, 1925-1926; Professor of Law, Mercer University, 1926-1927; Dean and Professor of Law, Mercer University, 1927-1933; Professor of Law, University of Georgia, 1933-1934; Dean and Professor of Law, University of Louisville, 1934-1936; Tulane University Summer 1937; Dean and Professor of Law, Washington University (St. Louis), 1936-1942; Member of Council of Section on Legal Education and Admissions to Bar of ABA, 1942-1948, Chairman of Section, 1945-1947, House of Delegates, ABA, 1948-1950; Vice-President and General Counsel, Terminal R.R. Association of St. Louis, 1942-1945; General Counsel, Wabash R.R. Company, 1945-1950; Dean and Professor of Law, Duke University, since 1950.

W. BRYAN BOLICH, A.B., B.A. (Juris.), M.A., B.C.L., *Professor of Law.*

A.B. 1917, Duke University; Duke University Law School, 1919-1921; B.A. (Juris.), 1923, B.C.L. 1924, M.A. 1928, Oxford University; general practice, 1924-1927; Legal Attaché, American Embassy, Rome, 1950; University of North Carolina, Summer 1951; Professor of Law, Duke University, since 1927.

JOHN S. BRADWAY, A.B., A.M., LL.B., *Professor of Law and Director of the Legal Aid Clinic.*

A.B. 1911, A.M. 1915, Haverford College; LL.B. 1914, University of Pennsylvania; general practice, 1914-1929; Legal Aid Society of Philadelphia, 1914-1920; chief counsel, Philadelphia Legal Aid Bureau, 1920-1922; Secretary, National Association of Legal Aid Organizations, 1923-1940, President, 1940-1942; Visiting Professor of Law and Director of the Legal Aid Clinic, University of Southern California, Summer 1928; Professor of Law and Director of the Legal Aid Clinic, University of Southern California, 1929-1931; Vice-President, N. C. Bar Association, 1945-1946; Visiting Professor, University of North Carolina School of Social Work, Winter and Spring Quarters, 1949-1953; Professor of Law and Director of the Legal Aid Clinic, Duke University, since 1931.

EDWIN C. BRYSON, LL.B., *Associate Professor of Law.*

University of North Carolina, 1922-1925; Duke University, 1932-1933; LL.B. 1937, University of Oregon; general practice, 1927-1930; assistant in Duke University Legal Aid Clinic, 1931-1947; Duke University Counsel since 1945; Associate Professor of Law, Duke University, since 1947.

H. CLAUDE HORACK, Ph.B., LL.B., LL.D., *Professor of Law Emeritus.*

Ph.B. 1899, LL.B. 1900, State University of Iowa; LL.B. 1904, Harvard University; LL.D. 1937, Tulane University; LL.D. 1939, Wake Forest College; Assistant Professor of Law, University of Wisconsin, 1904-1907; Professor of Law, State University of Iowa, 1907-1930; University of Michigan, Summer 1922; University of Wisconsin, Summer 1924; University of Southern California, Summer 1931; Stanford University, Summer 1936; Adviser, Council of Legal Education and Admissions to the Bar of ABA, 1927-1930, member of Council, 1940-1945; Secretary, Association of American Law Schools, 1926-1928, President, 1929; Dean and Professor of Law, Duke University, 1934-1947; Professor of Law, 1930-1934, 1947-1948; Professor of Law Emeritus, since 1948.

ROBERT KRAMER, A.B., LL.B., *Professor of Law; Editor, Law and Contemporary Problems; and Editor, Journal of Legal Education.*

A.B. 1935, LL.B. 1938, Harvard University; Counsel, National Labor Relations Board, 1938-1940; Counsel, Anti-Trust Division, Department of Justice, 1941-1942; Military service, 1940-1941, 1942-1946, Lieutenant Colonel, Ordnance Department, Army of the United States, Legal Division, Office Chief of Ordnance, general counsel, Research and Development Service, Ordnance Department; general practice, 1946-1947; Associate Professor of Law, Duke University, 1947-1949; Professor of Law, since 1949.

ELVIN R. LATTY, B.S., J.D., J.Sc.D., *Professor of Law.*

B.S. 1923, Bowdoin College; J.D. 1930, University of Michigan; J.Sc.D. 1936, Columbia University; Instructor in Romance Languages, University of Vermont, 1923-1927; general practice, 1930-1933; Special Fellow, Columbia University, 1933-1934; Associate Professor of Law, University of Kansas, 1934-1935; Professor of Law, University of Missouri, 1935-1937; George Washington University, Summer 1937; Stanford University, Summer 1938; University of North Carolina, Summer 1942, 1947, 1949; University of Texas, Summer

1951; Special Assistant to the American Ambassador, Caracas, 1942-1943; Acting Assistant Chief, Foreign Funds Control Division, Department of State, 1943; Professor of Law, Duke University, since 1937.

CHARLES H. LIVENGOD, JR., A.B., LL.B., *Professor of Law.*

A.B. 1931, Duke University; LL.B. 1934, Harvard University; general practice, 1934-1940; Regional Attorney for the Seventh Region, Wage and Hour Division, U. S. Department of Labor, 1940-1941; Chief of the Wage-Hour Section, Office of the Solicitor of Labor, 1941-1942; Lieutenant (j.g.) and Lieutenant, U.S.N.R., 1942-1945; general practice, 1945-1948; Lecturer in Law, Duke University, 1946-1948; University of North Carolina, Summer 1948; George Washington University, Summer 1949; Associate Professor of Law, Duke University, 1948-1951; Associate Editor of the *Journal of Legal Education*, 1951-1952; Professor of Law, Duke University, since 1951.

CHARLES L. B. LOWNDES, A.B., LL.B., S.J.D., *Professor of Law.*

A.B. 1923, Georgetown University; LL.B. 1926, S.J.D. 1931, Harvard University; general practice, 1926-1927; Assistant Professor of Law, Georgetown University, 1927-1928; Professor of Law, Georgetown University, 1928-1930; Research Fellow, Harvard Law School, 1930-1931; Professor of Law, Georgetown University, 1931-1934; Professor of Law, Duke University, since 1934.

MALCOLM McDERMOTT, A.B., LL.B., *Professor of Law.*

A.B. 1910, Princeton University; LL.B. 1913, Harvard University; general practice, 1913-1930; Dean and Professor of Law, University of Tennessee, 1920-1930; University of Southern California, Summer 1929; Legal Consultant, Department of Defense, 1951; Professor of Law, Duke University, since 1930.

DOUGLAS BLOUNT MAGGS, A.B., J.D., S.J.D., *Professor of Law.*

A.B. 1922, J.D. 1924, University of California; S.J.D. 1926, Harvard University; general practice, 1924-1925; Assistant Professor of Law, University of California, 1926-1927; Professor of Law, University of Southern California, 1927-1930; Visiting Professor of Law, Columbia University, 1928-1929; Yale University, second semester, 1935-1936; University of California, Summer 1927; Cornell University, Summer 1928; University of Chicago, Summer 1929; University of Southern California, Summer 1930; Stanford University, Summer 1935; University of North Carolina, Summer 1936, 1948; Special Assistant to the Attorney General of the United States, 1938-1939, 1942-1943; Chief of Wage-Hour Unit, Department of Justice, 1939; Chief Consultant to the General Counsel, Board of Economic Warfare, 1942; Chief Legal Consultant, Office for Emergency Management, 1942-1943; Solicitor, United States Department of Labor, 1943-1945; Professor of Law, Duke University, since 1930.

DALE F. STANSBURY, B.S., LL.B., J.S.D., *Professor of Law.*

B.S. 1914, Valparaiso University; LL.B. 1917, Indiana University; J.S.D. 1929, Yale University; Sterling Research Fellow, Yale University, 1928-1929; Deputy Attorney General of Indiana, 1918-1924, 1928; private practice, 1925-1927; Professor of Law, Mercer University, 1929-1935; Dean and Professor of Law, Wake Forest College, 1935-1944; Professor of Law, University of Tennessee, 1944-1946; Professor of Law, Duke University, since 1946.

ROBERT RENBERT WILSON, A.B., A.M., Ph.D., LL.D., *Professor of Political Science and Lecturer in International Law.*

A.B. 1918, Austin College; A.M. 1922, Princeton University; Ph.D. 1927, Harvard University; LL.D. 1940, Austin College; Carnegie Fellow in International Law, 1922-1923, 1924-1925; Member, Executive Council, American Society of International Law, 1929-1932, 1936-1939, 1944-1947; Member, Advisory Committee, Harvard Research in International Law, since 1935; Member, Board of Editors, *American Journal of International Law*, since 1937; United States Department of State: Assistant, Treaty Division, 1931-1932; Adviser on Commercial Treaties, 1944-1946 (temporarily detailed to American Embassy in China, 1946); Consultant on Commercial Treaties, since 1946; Assistant Professor of Political Science, Duke University, 1925-1927; Associate Professor of Political Science, Duke University, 1927-1929; Professor of Political Science, Duke University, since 1929; Chairman, Department of Political Science, Duke University, 1934-1948; Lecturer in International Law (School of Law), since 1948.

WILLIAM F. YOUNG, JR., A.B., LL.B., *Visiting Professor of Law.*

A.B. 1947, LL.B. 1949, University of Texas; Assistant Professor of Law, University of Texas, 1949-1952, Associate Professor of Law, since 1952; Visiting Professor of Law, Duke University, 1952-1953.

## ASSISTANTS IN LEGAL AID CLINIC

MRS. GRACE C. BODDIE, B.S., LL.B.

S. C. BRAWLEY, JR.

JAMES R. BROWNING, A.B., LL.B.

ALTON J. KNIGHT, A.B., LL.B.

JACK C. WOODALL, LL.B.

## VISITING LECTURER IN LAW

LOUIS E. SCHWARTZ, A.B., LL.B.

## LAW LIBRARY STAFF

MARIANNA LONG, A.B., B.S. in L.S., *Librarian*KATHARINE B. DAY, B.S., *Assistant Librarian in Charge of Acquisitions*MADELINE COPELAND, A.B., A.B. in L.S., *Cataloguer*

## PUBLICATIONS STAFF

MARY LOUISE LEWIS, *Editorial and Research Assistant*MARGRID H. PERRY, *Administrative Assistant*

## ADMINISTRATIVE STAFF

MYRTLE F. BURNS, *Registrar*LINA W. WILLIAMSON, *Secretary to the Dean*

## FACULTY COMMITTEES

*Committee on Alumni Relations:* Mr. Bolich, Chairman; Messrs. Bryson and McClain.

*Committee on Curriculum:* Mr. Maggs, Chairman; Messrs. Kramer, Latty, Lowndes, McClain and Stansbury.

*Committee on Graduate Study:* Mr. Latty, Chairman; Messrs. Bolich and Stansbury.

*Committee on Pre-Legal Affairs:* Mr. Bradway, Chairman; Messrs. McClain and Lowndes.

*Committee on Relations with Bench and Bar:* Mr. McDermott, Chairman; Messrs. Bryson and McClain.

*Committee on Student Affairs:* Mr. Bradway, Chairman; Messrs. Bryson and McClain.

*Law and Contemporary Problems Editorial Advisory Board:* Messrs. Bradway, Latty, McClain and Stansbury.



# The School: Its Purposes and Methods



**B**UILT on the foundation of the School of Law of Trinity College, with its history of legal instruction running back to the middle of the past century, the Duke University School of Law was established in 1924. In 1930 the School was moved into its present building, the Faculty and library were greatly increased, and the activities of the School broadened. The School of Law is a member of the Association of American Law Schools and is on the "Approved List" of the American Bar Association. More than twenty-two states and thirty-six institutions of higher learning are represented in its student body.

The curriculum of the School of Law provides thorough preparation for the practice of law in any state; its graduates have been admitted to the bar in over forty states and the Territory of Hawaii. Opportunities for specialization in particular branches of the law are afforded.

In carrying out the trust imposed by the indenture establishing the Duke Endowment, the School of Law seeks to have the student acquire knowledge and comprehension not only of legal doctrine, but also of the judicial process and of the social, economic, and political problems with which law and lawyers must deal. The method of instruction employed compels analysis of judicial opinions and inquiry into the non-legal as well as the legal considerations which underlie them. In appropriate courses, special consideration is given to the work of the legislative and administrative agencies of government. In recognition of the increasing importance of the role of the lawyer in representing private interests before government agencies and in government service, an unusually broad program is offered in the public law field. Scope for creative student work is provided by seminar courses and supervised individual study and research.

Practical training is not left for the first years of practice. A carefully-integrated series of courses is designed to give students actual experience in the work of lawyers. Legal research and writing courses and moot court work in the first and second years are followed in the third by seminar courses emphasizing legal planning and drafting and by practice courses and work in the Legal Aid Clinic. A student bar association affords a means whereby the student may gain acquaintance with the professional organizations through which a lawyer may and should contribute to the well-being of his profession and of society.

For details of the program of study see Program of Instruction, page 26. The separate courses are described on pages 30 through 35.

# Admission, Registration, and Fees



## *Admission*

### DIRECTIONS TO APPLICANTS FOR ADMISSION

**A**PPPLICATION must be made on the prescribed Law School application blank which will be sent upon request. No application can be finally passed upon until all required documents are on file. These documents are: (1) the application itself, to which a recently made personal photograph should be attached; (2) a complete transcript of record and evidence of graduation or right to honorable withdrawal from the institution from which credit is offered; (3) letters from (a) a responsible official of the college attended, and (b) a responsible person in the applicant's home community; (4) a report of the applicant's score on the Law School Admission Test described below; (5) a medical certificate on a form supplied by the Law School.

The Law School seeks to select students who give promise of leadership in some of the various phases of professional activity. Applicants for admission and their sponsors are requested to keep this fact in mind.

The Law School Admission Test, referred to above, is administered by the Educational Testing Service and is participated in by a number of the leading law schools of the country. It is given four times a year at examination centers conveniently located throughout the United States. No special preparation for the test is necessary, since it is designed to measure aptitudes rather than knowledge of subject matter. The applicant's score on the test will be considered along with other data in passing upon his admission to the Law School. Application forms and information concerning the test should be procured by writing directly to the Educational Testing Service, P.O. Box 592, Princeton, New Jersey.

### TIMES OF ADMISSION

Beginning students may enter only at the opening of the Fall semester in any year. Students who have completed the first year of law study at this or any other law school approved by the Association of American Law Schools may enter at the beginning of any semester.

## REQUIREMENTS FOR ADMISSION

An application for admission as a candidate for the degree of Bachelor of Laws may be submitted by any person (1) who is a graduate of a college of approved standing, or (2) who has completed in a college of approved standing work equivalent in number of units to three-fourths of that required for graduation and whose college work in its entirety shows an average grade equal to that required for graduation, the requirement in each case being determined by the regulations of the college where the work was taken.

### COMBINED COURSE

A number of colleges, upon application by their students, have permitted those who have completed three years of undergraduate work to enter the Law School of Duke University and upon the satisfactory completion of the first year of law school work to receive their Bachelor of Arts degree from such colleges. It is suggested that students desiring to enter Duke University School of Law make inquiry of their proper college authorities regarding this point.

A student from an undergraduate college of Duke University who has completed therein three years of study may apply to that college to enroll in a combined course wherein his first year of law study may be accepted toward the Bachelor of Arts degree, and, upon the completion of four additional semesters of law study, he will receive the Bachelor of Laws degree.

### ADMISSION TO ADVANCED STANDING

Any person who has complied with the requirements for admission set forth in this announcement prior to the commencement of his law study, who presents evidence of the satisfactory completion of at least one year of study at any law school which is a member of the Association of American Law Schools, and who is eligible for readmission to the law school from which he proposes to transfer, may be admitted to advanced standing, subject to such rules as would be applicable to students in this School having a comparable scholastic record. Provisional credit for courses so completed will be given, final credit being conditioned on the completion of at least one full year of law study in this School with an average at least five points above the passing grade. Adjustment of credit for work done in such other law schools may be made by the Dean or by vote of the Faculty.

### CANDIDATES FOR GRADUATE DEGREES

Applications for admission to graduate study should be addressed to the Dean of the Law School and should include transcripts of

records of legal and pre-legal work. For the requirements for the graduate degrees, see pages 20 and 21.

## *Registration*

Registration must be completed on the first day of each semester. Instruction will begin in all classes on the following day. Registration is conducted in the Law Building. All students, both old and new, are required to register at the beginning of each semester, at which time class schedules and course cards must be filled out and approved. Students who register in any semester at a date later than that prescribed are required to pay to the Treasurer of the University a penalty of \$5.00 for late registration unless excused therefrom. A student's registration for any semester is not complete until he has paid the tuition and fees for that semester. The \$5.00 penalty for late registration will be imposed, therefore, unless the student has paid his tuition and fees by registration day.

### REGISTRATION FOR BAR EXAMINATION

Many states now require that a student, prior to or shortly after beginning the study of law, register with the board of bar examiners of the state if he intends to practice therein. Each student should write to the secretary of the board of bar examiners of the state in which he plans to practice and ascertain if that state makes this requirement.

### CONDUCT OF STUDENTS

All students are admitted subject to the rules of the University and of the School of Law, and continuance in the School is conditioned upon the observance of such rules.

The University expects of its students loyal and hearty co-operation in developing and maintaining high standards of conduct as well as of scholarship. The University, therefore, reserves the right, and matriculation by the student is a concession of this right, to compel the withdrawal of any student whose conduct at any time is not satisfactory to the University.

## *Fees and Expenses*

Tuition fees are due at the beginning of each semester. The tuition fee is \$175.00 a semester. In addition, a general fee of \$50.00 per semester is required in lieu of separate fees for matriculation, medical service, and the like.

The admission of an applicant is not final until he deposits the sum of \$25.00 with the Treasurer of the University. This deposit will not be returned. It will be credited to the account of the student

or, if the student is entitled to the benefits of the Servicemen's Readjustment Act or the Vocational Rehabilitation Act, it will be refunded upon his matriculation.

Law students may secure admission to all regularly scheduled University athletic contests held on the University grounds during the entire academic year by payment of the athletic fee of \$10.00 per year plus any Federal taxes that may be imposed. This fee is payable in the fall semester.

The payment of the general fee entitles the student to full medical and surgical care, with the exceptions noted below. This service is under the direction of the University Physician with the co-operation of the staff of Duke Hospital. It includes hospitalization, medical and surgical care, drugs, dressings, X-ray studies, and ward nursing. A charge for board is made at the same rate as in the University dining halls. Refraction of eyes, treatment of teeth and of all chronic conditions, such as the removal of diseased tonsils, are not included in this service. The cost of any necessary braces and orthopedic appliances, as well as of special nursing, must be borne by the student.

Due to rising costs it may be necessary to consider some readjustment of charges. In the event of an adjustment applicants will be notified.

### SCHOLARSHIPS AND LOAN FUNDS

Scholarships covering tuition (\$350) are available to a limited number of first-year students, graduates of approved American universities and colleges, who are in need of such assistance. Applicants must have made excellent records in their college work and must show unusual promise of success in the study of law. In cases of exceptional merit the annual value of a scholarship may amount to as much as \$750.

Applications for scholarships should be presented to the Dean of the Law School, together with a transcript of college work and letters of recommendation from responsible persons, certifying to the character and fitness of the applicant.

Scholarship assistance will be continued as to second- and third-year students maintaining a high standard of work. The average cost of a year at Duke is approximately \$1200, which includes tuition, general fees, board, room and books. There are also a number of positions as assistants in the Law Library and as research assistants which are open to students, particularly in their second or third year, who do not receive other aids from the University.

The University administers certain endowed loan funds for the benefit of students who are not able to meet their expenses, for the purpose of helping worthy students who have established a satisfactory record at the School to continue their education.

Two funds have been provided out of which small loans may be



made to tide students over temporary financial emergencies arising during the course of the year. One of these was supplied by the Law School Guild and is limited as to amount and duration of loan. The other is due to the generosity of Mr. P. Frank Hanes of the Winston-Salem bar and is limited to the needs of selected students. These funds are administered by a committee of the Faculty.

### GRADUATE LAW FELLOWSHIPS

Graduate fellowships in limited amounts are available. To be eligible for these grants, applicants must have completed with distinction the work required for the first degree in law at this Law School or some other school approved by the Association of American Law Schools, and must have been admitted to candidacy for the LL.M. or J.S.D. degree. Preference will be given to students who plan to make law teaching a career. All applications should be addressed to the Dean of the School of Law, Duke University. Fellowships will be awarded by the law Faculty on recommendation of the Committee on Graduate Study.

### DINING SERVICE

Food service is cafeteria style. The cost of meals approximates \$1.75 to \$2.25 per day, depending on the need and taste of the individual. The dining facilities on the West Campus include three cafeterias with multiple-choice menus and the Oak Room where full meals and a la carte items are served.

In the Men's Graduate Center there is a cafeteria with multiple choice menus and a Coffee Lounge where sodas and sandwiches are served from 11:30 A.M. to 11:00 P.M. The prices in these dining rooms are the same as on the West Campus.

### THE GRADUATE DORMITORY

Furnished double rooms may be secured in the graduate dormitory on the West Campus at \$62.50 per person per semester. A few single rooms are available at \$87.50 per semester.

Rooms may be reserved by new applicants only if they have been officially accepted by the University and if they have paid a room deposit of \$25.00. The room deposit is refundable, providing application for refund is made sixty days prior to the registration date of the semester for which the room was reserved or within thirty days after official withdrawal from the University Residence Hall.

A resident student, in order to retain his room for the succeeding semester, must make application at the office of the Housing Bureau for confirmation of the reservation. In order to secure a refund of his initial room deposit, he must cancel his room reservation sixty days prior to the registration date of the semester for which the room

was reserved. All rooms which have not been reserved on or before the announced date will be considered vacant for the succeeding semester and will be reserved in the order in which applications are made.

Each student is expected to supply necessary sheets, blankets, pillows, rugs, and curtains. Furniture, beds and mattresses (39" x 74"), tables, chairs, dressers, mirrors, and window shades are furnished by the University.

Law students are advised to make early application to the Housing Bureau, Duke Station, Durham, North Carolina, since assignment of rooms is made considerably in advance of the beginning of each semester. The applicant should state that he has been accepted for admission to the School of Law. All dormitory rooms are to be occupied under the rules and regulations established by the University. Law students are not required to live in the University dormitories.

### LAWS REGARDING PAYMENTS

The Executive Committee of Duke University has enacted the following regulations which govern the payment of all fees due the University:

1. The President and the Treasurer of the University have no authority to suspend or in any way alter these regulations.

2. Any student who has failed to pay his bills on the dates advertised in the catalogue is denied the right to attend classes until his account is settled in full; subsequent withdrawal does not entitle a student to a refund.

3. No student is considered by the Faculty as an applicant for graduation until he has settled with the Treasurer for all his indebtedness to the University.

4. No student who has not settled all his bills with the Treasurer of the University is allowed to stand the midyear or final examinations of the academic year.

When a student wishes his bills sent to his parents or guardian, the student or his parent or guardian must so notify the Treasurer of the University in writing in due time, but this in no way releases the student from liability to established penalties, if his bills are not paid on the dates advertised.

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Further information will be sent upon request. Address

THE DEAN OF THE SCHOOL OF LAW

DUKE UNIVERSITY

Durham, North Carolina

# Bachelor of Laws Degree



UPON favorable recommendation of the Faculty, the degree of Bachelor of Laws will be conferred on students who shall have successfully completed six semesters' study of law, the last two semesters of work immediately preceding the granting of such degree having been completed in this School.

A student shall be deemed to have completed successfully six semesters' study of law if during this period he has

(1) secured a passing grade in courses aggregating seventy-eight semester hours;

(2) secured in every required course a grade not requiring repetition thereof; and

(3) secured a weighted average at least five points above passing in all work taken other than first-year courses, or, if the grade in such work is lower than that above specified, an average grade of five points above passing in all work taken.

Students who have spent only their last two semesters of study in residence in this School must have received a weighted average at least five points above passing for that year.

## MINIMUM AND MAXIMUM STUDENT LOADS

No regular student is permitted to take less than ten course hours per semester. No first-year student is permitted to take courses in excess of the first-year program.

Second- and third-year students are not permitted to take for credit more than fifteen course hours per semester; nor to audit and take for credit more than sixteen course hours per semester. In exceptional cases, students may petition the Faculty for permission to take more or less than the prescribed maximum or minimum loads.

## ATTENDANCE

Regular class attendance is required. The right to take the examinations, as well as the privilege of continuing one's membership in the School at any time, is conditioned upon regular attendance at the exercises of the School.

## STANDARDS OF SCHOLARSHIP

GRADES.—The final grades in each course are given in numerical terms which are equivalent to letter grades according to the following scale: 80 to 100, A; 70-79, B; 55-69, C; 50-54, D; 0-49, F.

A grade of 50 is necessary for passing a course. Where a grade below 50 is given a student in any required course, the course must be repeated if the instructor reports the grade with the notation "must repeat." When a student is required by the instructor to repeat a course which he has failed, the grade given after such repetition supersedes the previous grade in the course.

ELIGIBILITY TO CONTINUE LAW STUDY.—Any student who at the end of his first year or at the end of any subsequent semester, has an average grade lower than 50 on all the work then taken is ineligible to continue his work in the School. Any other student (1) whose average final grade at the end of his first semester is below 50, or (2) whose average grade at the end of any subsequent semester on all the work then taken is below 55, or (3) who in any single semester or in any single year receives failure grades in courses totaling eight or more semester hours, may at any time be declared by the Dean ineligible to continue.

NOTIFICATION OF UNSATISFACTORY SCHOLASTIC STANDING.—Every student subject to the provisions of the second sentence of the paragraph above, who has not been declared ineligible to continue his work in the School will be given a formal, written notice by the Dean's Office. This notice will set forth his average grade or grades and inform him (1) that he will be subject for the ensuing year to the special supervision of the Dean who may order his dismissal from the School in the event of his failure to maintain a satisfactory scholastic standard, and (2) that he will be ineligible to receive a degree unless his work meets the scholastic requirements for graduation which will be set forth in full in such notice.

Every other student whose average final grade at the end of any semester on the work of that semester, or on all work then taken, does not exceed the minimum average grade required for graduation by more than two points will be given a notice similar to that provided for above.

# Graduate Work in Law



## *Objectives of the Graduate Study Program*

THE graduate program of the School of Law is framed with a view to the encouragement and recognition of legal scholarship. It is addressed to the needs of those who have objectives consistent with the purposes of graduate legal education. It provides training for the qualified student who aspires to a teaching career, or who wishes to become proficient in a special field of the law, to do serious legal research, to prepare himself for a public law practice in or out of government, or to acquire a broader and deeper legal education than the undergraduate curriculum offers.

## *Master of Laws*

### ADMISSION TO CANDIDACY FOR THE DEGREE OF MASTER OF LAWS

Any person who has received the first degree in law from a law school qualified for membership in the Association of American Law Schools may be admitted as a candidate for the degree of Master of Laws, provided he satisfies the Committee on Graduate Study that his objective in desiring to do graduate work in law is consistent with the purposes for which the program is offered, and provided he demonstrates to the Committee, on the basis of his law school record, his capacity to take and profit by graduate work in law. In exceptional cases an applicant who does not meet the above requirements may, on vote of the Faculty, be admitted to candidacy for this degree if he is able to demonstrate that he is specially qualified, as by reason of practice or teaching. Normally the applicant will be required to show a level of scholarship appreciably higher than that required for the first degree in law at the institution from which he received that degree. An exceptionally high record in law school and in the graduate study program is expected of those who aspire to a teaching career. It should be emphasized that the graduate study program is designed for graduates with a definite objective, not for those who seek to pursue further law study simply from disorientation.



## REQUIREMENTS FOR THE DEGREE OF MASTER OF LAWS

The degree of Master of Laws is reserved for students who, having demonstrated their capacity for graduate work in law, maintain a level of scholarship substantially higher than that required for the degree of Bachelor of Laws.

The candidate for this degree is required to complete a course of study comprising not less than twenty nor more than twenty-six semester hours, or approved research equivalent thereto. Two full semesters are required for the completion of this program. A candidate for this degree is required to include in his course of study at least two of the following courses: International Law, Jurisprudence, and Legal History. In addition to the minimum requirement of twenty semester-hours, the candidate is required to submit an essay representing substantial research on a legal subject. This essay is to be prepared under the supervision of the instructor in charge of the field in which the research is done. The candidate will find it helpful to have formulated a project of research, or alternative projects, before his admission to graduate study or, at any rate, before pursuing his graduate study in residence.

The candidate's course of study will be selected, ordinarily, from the following list of courses: Public Regulation of Business Seminar, Jurisprudence, Conflict of Laws, International Law, Legal History, Advanced Legal Accounting, Corporate Planning, Debtors' Estates, Insurance, Corporate Reorganization, Securities Regulation, Credit and Insolvency, Family Law, Family Law Seminar, Future Interests, Tax and Estate Planning, Labor Relations, Labor Standards, Labor Law Seminar, Federal Income Taxation, Federal Estate and Gift Taxation, and State Taxation. This program of study is not inflexible. In appropriate cases the candidate will be encouraged to take related work in other departments of the University. Other courses of comparable content may be substituted for those listed. In special circumstances, credit not in excess of two hours per semester may be arranged for special, supervised research projects.

### *Doctor of Juridical Science*

#### ADMISSION TO CANDIDACY FOR THE DEGREE OF DOCTOR OF JURIDICAL SCIENCE

Any person holding the degree of Master of Laws from this or any other law school which is qualified for membership in the Association of American Law Schools may, on vote of the Faculty, be admitted to candidacy for the degree of Doctor of Juridical Science,

provided he completed the work for the Master's degree with distinction.

### REQUIREMENTS FOR THE DEGREE OF DOCTOR OF JURIDICAL SCIENCE

Upon favorable recommendation of the Faculty, the degree of Doctor of Juridical Science will be conferred on students admitted to candidacy for that degree who complete and submit a monograph or series of essays suitable for publication and deemed by the Faculty to be of distinguished character and who pass an oral examination before a special committee appointed for that examination. At least one academic year, and, in the absence of an extension granted by the Faculty, not more than three years, must elapse between the award of the Master's degree and the award of the degree of Doctor of Juridical Science. Students who have received the degree of Master of Laws from another law school must spend at least two full semesters engaged in research at this School, and in addition may be required to complete a course of study prescribed by the Committee on Graduate Study. The monograph or series of essays required may be based upon, or be an extension of, the essay required for the Master's degree, provided substantial additional research is represented.

### *Post-Graduate and Refresher Courses*

The School of Law provides instruction for students not meeting the requirements for admission to candidacy for graduate degrees who desire refresher courses or who desire simply to complete a fourth year of law school work. The successful completion of the courses taken by such students may be evidenced by certificate of the Dean.

# Facilities and Activities



## *The Law School Building and Its Facilities*

THE Law Building, like all other structures on the main campus of Duke University, is in Tudor Gothic style of colorful Cambrian stone from the Duke University quarries. It was occupied by the School of Law for the first time in September, 1930. In it are classrooms, seminar rooms, offices for Faculty and Staff, quarters for the Legal Aid Clinic and for the Duke Bar Association, a courtroom equipped for trial court and appellate court sessions, a student lounge, and the Law Library. For a description of dormitory accommodations, see page 15.

### THE LAW LIBRARY

The Law Library, containing a collection of approximately one hundred thousand volumes, is one of the largest law school collections in the South. It consists of American and English statutory and case law; a collection of Continental law materials; treaties, digests, encyclopedias; the various selected case series; a comprehensive collection of legal periodicals; and publications in the fields of history, economics, government, and other social sciences, supplemental to the strictly legal materials. The Library receives every current legal periodical of general interest printed in the English language.

There are several thousand additional volumes of a legal nature in the main University library building, immediately adjoining the Law School, as well as the general collection of over a million volumes, to all of which the law students and Faculty have convenient access.

The Law Library is administered by a professionally trained staff and is open to the public daily throughout the year and in the evenings, as well, whenever the Law School is in session.

### THE LEGAL AID CLINIC

A Legal Aid Clinic was organized at the School of Law in 1931 under the direction of Professor John S. Bradway. The purpose of the Clinic is threefold; to give the student experience in handling actual cases; to develop creative skills, techniques, and mental habits; to encourage a sense of responsibility to client, court, profession, and community. The student is obliged to synthesize his knowledge in

applying it to concrete situations which may often cut across course boundaries. He is introduced to the technique of fact gathering, the steps in a legal plan of campaign, the handling of clients, the management of a law office. A series of exercises is conducted in legal research and briefing, leading to the writing by each student of a trial brief for a lawyer in active practice. Classroom work involves laboratory exercises in preparation for the handling of actual cases. The law practice in the Clinic is of a sort calculated to stress the ethical responsibilities of the lawyer and the social implications of his work. Instruction in the handling of the actual cases is individualized. Training in the art of interprofessional co-operation is provided through contacts between the Clinic and various departments of the University and agencies of social welfare in North Carolina.

The Legal Aid Clinic is in effect an active law office offering the student, under supervision, experience in interviewing actual clients, investigation of facts, preparing cases for adjustment or for trial in court, writing legal documents, briefing, and other tasks familiar to the practicing attorney. Approximately four hundred persons a year apply for services of the Clinic. Only those applicants who are unable to pay counsel fees, and only those cases where there is no opportunity for a contingent fee are accepted.

The activities of the Clinic are centered in suite of offices in the Law School building, and in an interviewing office in the business center of Durham. In addition to the Director, a staff of five members of the North Carolina State Bar assists in the educational and supervisory activities of the Clinic and in representing its clients in court proceedings.

## *Publications*

### LAW AND CONTEMPORARY PROBLEMS

The School of Law publishes a quarterly, *Law and Contemporary Problems*, under the editorship of Professor Robert Kramer. This periodical, now in its eighteenth volume, presents in each issue a symposium on a problem of current importance, in which the inter-related social and economic, as well as legal, factors are discussed by writers of competence in these respective fields. Where student research may contribute to the understanding of the legal aspects of such problems, student writings are accepted for publication.

The circulation of *Law and Contemporary Problems* extends not only to members of the legal profession and law libraries throughout the country, but also to industrial and financial concerns, governmental agencies, and public and general university libraries. Indi-

vidual issues are not infrequently used as materials for study in university courses.

### JOURNAL OF LEGAL EDUCATION

The *Journal of Legal Education*, a quarterly, is also edited at the School of Law under the direction of Professor Robert Kramer. The publication serves as the organ for the Association of American Law Schools, providing a clearing house for ideas and professional studies in the constantly expanding field of legal education. The editorial policy of the *Journal of Legal Education* is determined by an editorial board named by the Association, assisted by an advisory committee consisting of prominent legal educators and practicing attorneys.

### DUKE BAR JOURNAL

The School inaugurated in 1950-1951 the publication of the *Duke Bar Journal*, published semi-annually, the material of which is written entirely by law students under Faculty supervision. This *Journal* affords an unusually fine medium for student training in effective legal writing. Professors Kramer, Livengood, Lowndes, and McClain have served as Faculty supervisors during 1952-1953.

## *Organizations and Activities*

### THE DUKE BAR ASSOCIATION

The Duke Bar Association was established in the spring of 1931. It is open to all the students of the Law School and is organized along the lines of the American Bar Association. Its purpose is to introduce the student to the problems considered by the bar in professional organizations and to develop professional consciousness and responsibility. A Faculty Committee on Student Affairs serves as general adviser to the student officers.

### MOOT COURTS

A program of student Moot Court arguments is conducted under the supervision of the Faculty as a part of the courses in Research and Writing in which all students are required to participate.

### WILLIS SMITH PRIZE

Mr. Willis Smith, a member of the Raleigh bar and of the United States Senate and Chairman of the Board of Trustees of Duke University, awards annually to that member of the graduating class of the Law School who has maintained the highest scholastic average during the entire three years of law school work, a prize consisting



of a set of books selected personally by Mr. Smith each year for that purpose. To qualify for this prize the student must have made an outstanding record through his law school course.

### JAMES F. BYRNES SENATE PRIZE

Delta Theta Phi Foundation, Inc., through the James F. Byrnes Senate, awards each year to that member of the first-year class of the Law School who has completed the work of the first year with the highest scholastic average during that year a cash prize of fifty dollars.

### ORDER OF THE COIF

A chapter of the Order of the Coif, national legal scholarship society, has been established at Duke University School of Law. Its purpose is "to foster a spirit of careful study and to mark in a fitting manner those who have attained a high grade of scholarship." Election is restricted to the ten per cent of the graduating class who have attained the highest rank in their law school work.

### LEGAL FRATERNITIES

Two of the largest national legal fraternities maintain active chapters at the School of Law. The Charles Evans Hughes Inn of Phi Delta Phi International Legal Fraternity was founded at the School of Law in 1931. In 1947 the James F. Byrnes Senate of Delta Theta Phi Law Fraternity was installed at the School. Both fraternities seek to further professional standards. Students may be elected to membership at any time following their first full semester of law study. During the school year the fraternities sponsor separate programs of luncheons featuring prominent local speakers from the profession, an annual address by an attorney of national prominence, and occasional social functions.

### RECREATIONAL FACILITIES

The University is located about two miles from the business district of Durham on wooded hills constituting part of the five-thousand-acre Duke Forest, which is maintained by the School of Forestry. Within a short distance from the campus are facilities for golf, horseback riding, and woodland hiking. Students of the Law School are entitled to the use of the University gymnasium, tennis courts, swimming pool, and similar privileges without cost. Motion pictures are shown in Page Auditorium twice a week, and concert programs, recitals, lectures, and plays are presented frequently.

# Program of Instruction



THE program of instruction of the School of Law has been thoroughly revised as a result of studies made by the Faculty. The curriculum had become overcrowded. For years new courses have been added at this and other schools as new fields of law have become important; old courses have been retained. Students who wished to specialize in particular fields often found it necessary to omit some of the older, more fundamental courses. Insufficient attention had been given to legal writing, the drafting of legal instruments, and legal planning.

The newly adopted curriculum is designed to insure that students may prepare to specialize in practice without foregoing any part of the basic legal education required for general practice and desirable for all specialists. Courses have been combined; duplications in courses have been eliminated. The larger part of students' third year has been opened for studies of specialties. New courses and seminars have been added, especially in the third year in which teaching methods will be different from those used in the older courses. In these courses and seminars legal writing and drafting and legal planning will be emphasized.

The courses offered are listed below. They are grouped under three headings: First-Year Program; Second-Year Program, and Third-Year Courses. At page 30 the individual courses are described; in that section of the Bulletin they are grouped under the following headings: Business Courses; Property Courses; Public Law Courses; General Courses; Procedure and Practice Courses.

THE FIRST-YEAR PROGRAM is prescribed. It includes basic courses in the fields of contracts, business associations, property (including sales and other chattel transactions), and torts. These courses serve also to acquaint the student with the nature of the judicial process (which is stressed in Chattel Transactions), the court system and court procedure (stressed in Torts), and legal history (stressed in the second property course and in other courses). In the field of public law, legislation and the legislative process are studied in the first semester; criminal law and procedure is given throughout the year. A course in research and writing (which is continued through the first semester of the second year), after consideration of how the law is found in law books, trains students in writing memoranda of

law and legal arguments and in drafting legal documents; the course emphasizes, for each student, the law of the state in which he intends to practice, and introduces students to the art of legal planning. It includes the preparation of briefs and the arguing of moot court cases.

THE SECOND-YEAR PROGRAM comprises nearly all the other basic courses which all students need regardless of what kind of law practice they plan to enter and the courses prerequisite to third-year work in special fields and in legal planning. Third-year courses may be substituted for courses in this program only upon approval of the Faculty upon petition. The research and writing course continues through the fall semester. The basic work in property and business associations is completed. In the field of business transactions, the students study negotiable instruments and credit. A course in federal income taxation, basic to advanced third-year work for specialists, adequately covers the subject for students not planning to specialize in it. Legal and equitable remedies, and court procedure in civil cases, are studied in the course in remedies. Students continue their study of public law in courses in constitutional and administrative law.

THE THIRD-YEAR COURSES (of which an aggregate of 10 to 15 hours each semester is to be selected by each student) are designed to emphasize legal planning and drafting and to enable students to equip themselves to specialize in particular fields. The faculty recommends that all students complete their basic legal education by taking courses in evidence and legal ethics. There are also fundamental courses in legal history and jurisprudence and in conflict of laws and international law. The rest of the third-year courses are in specialties; they are grouped below under the headings (1) business (including *inter alia* advanced corporation law), (2) estates, family, and property, (3) procedure, practice, and local law, and (4) public law (including *inter alia* labor law and taxation). A number of these specialty courses (those preceded by asterisks in the list below) emphasize legal planning and drafting. Each student is required to include two of these courses in his third-year program; enrollment in each is limited.

### *The First-Year Program*

	SEMESTER HOURS	
	Fall	Spring
Chattel Transactions .....	2	
Sales [Part Only] .....		2
Contracts .....	4	2
Criminal Law and Procedure.....	2	2
Torts and Introduction to Civil Procedure.....	3	2
Research and Writing I.....	1	1
Legislation .....	3	
Business Associations I .....		3
Estates in Land.....		3
	15	15

## *The Second-Year Program*

	SEMESTER HOURS	
	Fall	Spring
Civil Procedure I.....	3	2
Constitutional Law and Federal Courts.....	3	2
Business Associations II .....	3	
Conveyancing .....	3	
Research and Writing II.....	1	
Restitution & Equitable Remedies.....	2	
Administrative Law .....		3
Credit Transactions .....		3
Federal Income Taxation .....		3
Negotiable Instruments .....		2
	15	15

## *The Third-Year Courses*

Students are to select courses aggregating 10 to 15 hours each semester. Every student must select two of the starred courses listed under "B. Specialties." These courses emphasize legal planning and drafting. Enrollment in each of them except Legal Aid Clinic is limited to 15. Legal Aid Clinic counts as a single starred course, though it is a year course. No student may take more than two starred courses in the same semester without the consent of the Dean and of the instructors in the starred courses involved.

### A. ADVANCED COURSES

Conflict of Laws .....	3
International Law .....	3
Jurisprudence .....	3
Legal History .....	2

### B. SPECIALTIES

#### I. Business (See also "IV. Public Law.")

*Corporate Planning and Drafting .....	2	
Insurance .....	2	
Debtors' Estates .....	2	
*Advanced Legal Accounting (Not Offered 1953-54) .....		2
*Securities Regulation (Not Offered 1953-54, 1954-55) .....		2

#### II. Estates, Family, Property

Family Law .....	2	
Future Interests .....	3	
Trusts .....	3	
Family Law Seminar .....		2
*Tax and Estate Planning .....		2
Wills and Administration of Estates.....		3

#### III. Procedure, Practice and Local Law

Evidence .....	2	2
*Legal Aid Clinic .....	2	2
*Case Studies .....	1	
North Carolina Statutes and Decisions.....	2	
Civil Procedure II .....		3
Legal Ethics .....		1
North Carolina Practice .....		2

IV. Public Law	
Federal Estate & Gift Taxation.....	3
Labor Relations .....	3
Municipal Corporations .....	2
*Constitutional Law & Federal Courts Seminar	
(Not Offered 1953-54) .....	2
*Labor Law Seminar .....	2
Labor Standards .....	2
*Public Regulation of Business Seminar.....	3
State Taxation (Not Offered 1953-54) .....	2
*Tax and Estate Planning .....	2



# Description of Courses



## *Business Courses*

**ADVANCED LEGAL ACCOUNTING.** The study and analysis, in more detail than in Business Associations II, of the balance sheet, the income statement, and the accountancy concepts and principles that serve as controls over corporate distributions; financial reporting and investor protection; trust and estate accounting; and some problems in accounting with respect to public utility regulations. Two hours a week second semester. (Not Offered 1953-54.) **MR. LATTY**

**BUSINESS ASSOCIATIONS I.** Legal principles concerning association in business by agency, partnership, other unincorporated forms and corporations. Creation, form and nature of agency, partnership and corporation, corporate existence (de facto corporations, corporate entity and its limitations), powers, duties, liabilities and compensation of agents, partners, officers and directors, risks in conduct of business by representatives (vicarious liability in tort, authority to contract), imputation of notice and knowledge, scope of enterprise (ultra vires), revocation and termination of authority, ratification, undisclosed business associates, stability of the associational relationship. The purpose of this course is to grasp basic principles of Agency and Partnership and elementary doctrines of corporation law as a foundation for the advanced corporation course (Business Associations II). Three hours a week second semester. **MR. KRAMER**

**BUSINESS ASSOCIATIONS II.** Promoters, subscription to and issue of shares, stock structure and corporate capital, dividends, preferred stock, bonds, capital increases and reduction, corporate re-acquisition of own stock, elementary principles of corporate accounting, public issue of securities, stock transfers, fundamental corporate changes (recapitalization, sale, merger and consolidation, dissolution), stockholders' suits, and certain principles concerning management and operation not studied in Business Associations I. Three hours a week first semester. **MR. LATTY**

**CONTRACTS.** The formation and legal operation of contracts in general, with attention to problems of drafting and counseling as well as of litigation and extrajudicial settlement. Legal and equitable remedies in contract cases, including damages, specific performance, and restitutionary remedies, and important procedural devices incident to such remedies. Four hours a week first semester, two hours a week, second semester. **MR. STANSBURY**

**CORPORATE PLANNING AND DRAFTING.** The student is given hypothetical corporate problems (perhaps taken from the practicing lawyer's desk) on a client's proposed course of action; each problem is designed to require the student to grasp the business situation and goals involved, analyze for pertinent legal principles, plan the transaction to avoid legal and business (including taxation) pitfalls, plan the requisite steps to consummate the desired transaction, draft the appropriate papers and present his research. Two hours a week first semester. **MR. LATTY**

**CREDIT TRANSACTIONS.** Contracts of accommodation, including those on bills and notes, contracts of suretyship and guaranty, letters of credit. Mortgages and security interests in real property, chattel mortgages, pledges, trust receipts, conditional sales and consignment contracts. Three hours a week second semester. **TO BE ANNOUNCED**

**DEBTORS' ESTATES.** Rights of creditor and debtor in the administration of insolvent estates in bankruptcy, with comparisons to alternative methods of admin-

istration: compositions, assignments for the benefit of creditors, receiverships, and special proceedings for certain classes of debtors. An introduction to proceedings for the rehabilitation of debtors under the Bankruptcy Act, including arrangements and reorganization. Two hours a week first semester. **TO BE ANNOUNCED**

**INSURANCE.** The nature of "insurance"; state supervision and control; types of insurance organization; the legal requirement of insurable interest; interest of others than the named insured; the measure of indemnity and subrogation; the beneficiary's interest in life insurance; the insured event, and excepted causes; warranties, representations and concealment; the making of insurance contracts; waiver, estoppel and election. Two hours a week first semester. **MR. McDERMOTT**

**NEGOTIABLE INSTRUMENTS.** Negotiability of bills and notes; execution of negotiable instruments; obligations of parties; formal requisites of negotiability; transfer and negotiation; requisites of holding in due course; equities and defenses; discharge. Two hours a week second semester. **MR. LOWNDES**

**PUBLIC REGULATION OF BUSINESS SEMINAR.** See Public Law Courses, page 32 for description. Three hours a week second semester.

**MR. LIVENGOOD AND MEMBERS OF THE ECONOMICS DEPARTMENT STAFF**

**SECURITIES REGULATION.** Regulation of distribution and marketing of securities and protection of the investor under the Securities Act of 1933, the Securities and Exchange Act of 1934, the Public Utility Holding Company Act of 1935 and the Trust Indenture Act of 1939, with summary treatment of other related federal legislation; the role of the Securities and Exchange Commission; a brief survey of state regulation. Considerable emphasis is placed on civil liabilities under the federal legislation. Two hours a week second semester. (Not offered 1953-54, 1954-55.) **MR. LATTY**

## *Property Courses*

**CHATTEL TRANSACTIONS.** The course covers most of the topics generally treated under the heading of Personal Property, Bailment and Sales; application of the concepts of possession and title in the law of personal property; the bailment relationship; artisan's lien; transfer of chattels by gift, sale and miscellaneous inter vivos transactions. In Sales, the emphasis is on remedies and performance. Special attention is given to the judicial process and technique. Problems of chattel mortgages, pledges and sales financing are considered only incidentally, their general treatment being reserved for the course in Credit Transactions. Two hours a week first semester. **MR. LATTY**

**CONVEYANCING.** Form and execution of deeds, description in deeds; rents, licenses, easements and profits; covenants and agreements running with the land at law and in equity; estoppel by deed; recording and title registration; aspects of public control of land use. Three hours a week first semester. **MR. BOLICH**

**ESTATES IN LAND.** Historical introduction to real property with a detailed consideration of the modern law of possessory estates, including the fee simple, the fee tail, the life estate, the estate for years, and other non-freeholds; concurrent ownership; incidents of possessory ownership relative to water, lateral and sub-jacent support and air. Three hours a week second semester. **MR. BOLICH**

**FUTURE INTERESTS.** Future interests in real and personal property; reversions; vested and contingent remainders; executory interests; rights of entry; possibilities of reverter, gifts to classes; powers; perpetuities; construction of wills and deeds as affecting the validity and characteristics of the interests created thereby. Three hours a week first semester. **MR. BOLICH**

**TAX AND ESTATE PLANNING.** Seminar devoted to problems and techniques of tax and estate planning. Federal Income Taxation and Federal Estate and Gift Taxation and Future Interests are prerequisite to enrollment in the seminar. Two hours a week second semester. **MR. BOLICH AND MR. LOWNDES**

**TRUSTS.** The nature, creation and elements of a trust; transfer of the beneficiary's interest; administration of trusts; termination and modification of trusts; charitable trusts; liabilities to third persons; and liabilities of third persons. Three hours a week first semester.

MR. LOWNDES

**WILLS AND ADMINISTRATION OF ESTATES.** Descent and distribution: property rights of surviving spouse; children and descendants; ancestors and collaterals; effect of claimant's misconduct. Making and revoking wills; testamentary capacity; execution of wills; holographic and special types; integration; testamentary character and intent; revocation; operation of legacies and devices. Probate and administration: grant of administration; probate and contest of wills; assets; contracts, sales and investments by personal representative; claims; settlement of the estate. Three hours a week second semester.

MR. McDERMOTT

## *Public Law Courses*

**ADMINISTRATIVE LAW.** The formulation of statutory schemes of administrative regulation: the organization of administrative agencies; the determination, promulgation and enforcement of administrative programs; the respective spheres of administrative and judicial responsibility; judicial control over administrative action. Practice and procedure before administrative agencies: informal conferences and negotiations; formal hearings; constitutional limitations. Three hours a week second semester.

MR. KRAMER

**CONSTITUTIONAL LAW AND FEDERAL COURTS.** Judicial protection against arbitrary governmental action; the history of the concept of a "higher law"; the constitutional clauses relied upon. The organization and jurisdiction of the federal courts; when and how judicial review can be invoked; limitations on governmental power with respect to economic matters, civil liberties and criminal and civil procedure. The powers of Congress, express and implied; limitations on State governmental powers resulting from the existence and from the exercise of Congressional powers. The constitutional question involved in administrative law, conflict of laws, intergovernmental tax immunities, jurisdiction to tax, and state taxation of interstate commerce are covered more fully in other courses. Three hours a week first semester, two hours a week second semester.

MR. MAGGS

**CONSTITUTIONAL LAW AND FEDERAL COURTS SEMINAR.** Advanced study of current Supreme Court cases and of particular fields in constitutional law and history and federal court organization. Two hours a week second semester. (Not offered 1953-54.)

MR. MAGGS

**CRIMINAL LAW AND PROCEDURE.** An introductory study of the law of crimes and the administration of criminal justice; analysis of the criminal act and the mental element in crime; consideration of specific offenses as defined by statute and the common law; discussion of typical defenses in relation to specific crimes; elementary criminal procedure; study of the Anglo-American penal system. Two hours a week throughout the year.

MR. McCLAIN

**CRIMINAL LAW AND PROCEDURE (ADVANCED).** A seminar approach to the preparation and trial of criminal cases; theories of crime and punishment; modern trends in the definition and punishment of crimes; trial techniques. Two hours a week first semester. (Not offered 1953-54.)

MR. LIVENGOD

**FEDERAL INCOME TAXATION.** An introduction to the federal taxation with particular emphasis on the federal income tax. The course is designed as a final course for students who do not intend to specialize in tax practice and as an introductory course for those who do. Three hours a week second semester.

MR. LOWNDES

**FEDERAL ESTATE AND GIFT TAXATION.** A more advanced course in federal taxation. The principal emphasis of the course is on the federal estate and gift taxes, and the relation of those taxes to the federal income tax. Three hours a week first semester.

MR. LOWNDES

**INTERNATIONAL LAW.** A survey of public international law of peace, as evidenced especially in decisions of national and of international courts; the drafting and interpretation of treaties; the nature and handling of international claims; the organization and jurisdiction of international tribunals, with special reference to the International Court of Justice; developments with respect to the codification of the law. Three hours a week second semester. MR. WILSON

**LABOR LAW SEMINAR.** An intensive examination of significant problems in collective bargaining, union-management relations and labor dispute settlement, with emphasis upon the drafting and interpretation of contract clauses, theories and techniques in contract negotiation and grievance handling, voluntary arbitration and other procedures for the adjustment of disputes, and the interrelation of the legal and economic aspects of labor problems. Prerequisite: Labor Relations. Two hours a week second semester. MR. LIVENGOOD

**LABOR RELATIONS.** A study of the law relating to collective bargaining and concerted labor activities, including the National Labor Relations Act and related legislation, the legal aspects of strikes, boycotts and picketing, the negotiation and administration of collective bargaining agreements, procedures for the settlement of labor disputes, and relations between the union and individual employees. Three hours a week first semester. MR. LIVENGOOD

**LABOR STANDARDS.** Government regulation of conditions of employment, including the Fair Labor Standards Act and other wage-hour and child-labor statutes, unemployment insurance and other social security legislation, employers' liability and workmen's compensation acts, and related laws establishing minimum standards for the creation, continuance and termination of the employment relationship. Two hours a week second semester. MR. LIVENGOOD

**LEGISLATION.** A general introduction to the field of Public Law, including, among others, the following topics: organization, techniques, procedures, and problems of legislative bodies; formulation of legislative policies; and drafting and interpretation of statutes. Three hours a week first semester. MR. LIVENGOOD

**MUNICIPAL CORPORATIONS.** The nature of municipal corporations; their external constitution; their internal constitution; their powers; their liabilities; remedies for and against municipal corporations. Two hours a week first semester. MR. McDERMOTT

**PUBLIC REGULATION OF BUSINESS SEMINAR.** Intensive study of the federal antitrust laws and their common-law background, with emphasis on the economic policies involved. Three hours a week second semester.

MR. LIVENGOOD AND MEMBERS OF THE ECONOMICS DEPARTMENT STAFF

**STATE TAXATION.** Constitutional limitations on the taxing power; jurisdiction to tax; state excise taxes; and the general property tax. Two hours a week second semester. (Not offered 1953-54.) MR. LOWNDES

**TAX AND ESTATE PLANNING.** See Property Courses, page 31, for description. Two hours a week second semester. MR. BOLICH AND MR. LOWNDES

## *General Courses*

**CONFLICT OF LAWS.** A study of the special problems which arise when the significant facts of a case are connected with more than one jurisdiction. Recognition and effect of foreign judgments; choice of law; federal courts and conflict of laws; the United States Constitution and conflict of laws. Three hours a week second semester. MR. STANSBURY

**FAMILY LAW.** A seminar approach to the cases, statutes, and sociological theories covering the contract to marry, its formation and breach; marriage; annulment; divorce; separation; property rights; and international jurisdiction. Selected materials. Two hours a week first semester. MR. BRADWAY



**SEMINAR IN FAMILY LAW.** A seminar approach to the efforts of the social sciences, including the law, to deal with the intricate and perplexing problems of the modern family. Readings are assigned in legal and sociological material. Class discussions are based upon some central topic, such as divorce, domestic relations courts, etc. Written reports required in lieu of an examination. Family Law is prerequisite. Two hours a week second semester. **MR. BRADWAY**

**JURISPRUDENCE.** Discussion of some of the basic problems of classical and contemporary juristic theory, with applications to cases and statutes. Open to all graduate students, and, with the consent of the instructor, to qualified second and third year students. Three hours a week first semester. **MR. KRAMER**

**LEGAL HISTORY.** A study of the development of fundamental English and American legal institutions, with emphasis upon historical method and the conditioning factors, social, economic and political. Two hours a week second semester. **MR. BOLICH**

**NORTH CAROLINA STATUTES AND DECISIONS.** A study of selected statutes of North Carolina with discussion of their application, and an analysis of the decisions of the Supreme Court of North Carolina construing them. Two hours a week first semester. **MR. BRYSON**

**RESTITUTION AND EQUITABLE REMEDIES.** A survey of equitable remedies in general (including enforcement of equity decrees) and of important parts of the fields of equity and restitution that are not covered in other courses. Two hours a week first semester. **MR. STANSBURY**

**TORTS AND INTRODUCTION TO PROCEDURE.** The bases of liability in damages for personal injuries and injuries to property; bases other than fault; negligence; intentional infliction of harm. Procedure in jury trials; proof of negligence; causation and "proximate cause"; defenses; the damages recoverable and equitable relief obtainable. Special rules applicable to occupiers and owners of land, motor vehicle accidents, suppliers of goods and remote contractors. Misrepresentation and fraud; defamation; assault and battery; false imprisonment. Three hours a week first semester, two hours a week second semester. **MR. MAGGS**

## *Procedure and Practice Courses*

**CASE STUDIES.** Detailed analysis of an important civil suit, under supervision of a visiting instructor who was counsel therein. The instructor's files and the record and briefs will be studied. Consideration will be given to how the matter first arose and what business or other problems of the client were involved; how counsel first analyzed the matter and how he ascertained relevant facts; how counsel prepared for and conducted the trial and appellate proceedings. One hour a week first semester. **INSTRUCTOR TO BE ANNOUNCED**

**CIVIL PROCEDURE I.** A study of modern methods of pleading (including Federal Rules of Civil Procedure) and their relationship to the historical developments insofar as such developments affect or explain present-day rules; also a treatment of real party in interest, joinder of parties, joinder of causes of action, counterclaims, objections to pleadings, amendment to pleadings, and summary disposition of cases. Three hours a week first semester, two hours a week second semester. **MR. McCLAIN**

**CIVIL PROCEDURE II.** A continuation of Civil Procedure I, with special emphasis on trial and appellate practice. Three hours a week second semester. **MR. MAGGS**

**EVIDENCE.** Examination of witnesses; admission and exclusion; competency of witnesses; privilege; relevancy; demonstrative evidence; writings; the hearsay rule and exceptions thereto; the burden of producing evidence; presumptions; the burden of persuasion; judicial notice. Two hours a week throughout the year. **MR. McDERMOTT**

**LEGAL AID CLINIC.** This course is designed to develop in the student self-confidence and the professional habit of handling his cases in a methodical manner.



During the first semester the student learns to: interview a client in an orderly manner; determine the gaps in the client's story and filling in these gaps with information from other proper sources; evaluate facts; make a record of facts including the documents used for the purpose; diagnose a case for legal "symptoms" and develop legal theories; organize research; plan a campaign at law. The class becomes familiar with the courthouse as a source of facts; and with a law office as a place in which a lawyer functions. Special exercises like searching a title to real estate, preparing a criminal case for trial, are assigned. During the second semester the student learns to conclude a case in an orderly professional manner by education; by conciliation; by litigation. The climax is a jury trial with expert witnesses. The students operate under the supervision of a staff member throughout the year. Students are assigned to duty in rotation in the Legal Aid Clinic office and in the downtown office. This gives them a chance to interview flesh and blood clients and to see the progress of real cases. By preparing trial briefs in court and criminal cases the student learns how to get ready for his appearance in the courtroom. Two hours a week throughout the year. MR. BRADWAY

**LEGAL ETHICS.** A seminar approach to the ethical problems of the lawyer and the profession. Readings are assigned in legal biography, law reform, the history of the profession, legal aid work. Class discussions cover canons of ethics, statutes, cases, and opinions of grievance committees dealing with the daily problems of the practicing lawyer. A written report is required on some phase of the reform of the administration of justice. One hour a week second semester.

MR. BRADWAY

**NORTH CAROLINA PRACTICE.** A study of the steps in an action at law from the issuance of process to the entry of final judgment including service of process; appearance and waiver of process; selecting the jury; various motions made during the trial; submission of case to jury; verdict; judgment; noting and perfecting appeal. Also included are such topics as jurisdiction of various courts in North Carolina; venue; trials without a jury; provisional remedies and special proceedings. Two hours a week second semester.

MR. BRYSON

## *Legal Research and Writing*

**RESEARCH AND WRITING I.** Classroom instruction and individual problems in the use of law books, the preparation of memoranda of law, and moot court briefing and argument. The first year of a two-year program designed to familiarize the student with the materials and methods of legal research and legal writing. Two semester-hours credit.

MESSRS. STANSBURY, BRYSON, AND BRADWAY

**RESEARCH AND WRITING II.** The second year of the two-year program of research and writing. In addition to more advanced work of the kind involved in the first-year program, the student will assist in editing memoranda prepared by first-year students and in judging first-year moot court arguments. Required of all second-year students. One semester-hour credit.

MESSRS. STANSBURY, BRYSON, AND BRADWAY

Upon recommendation of the Committee on Graduate Study, seminars not listed in the Bulletin may be created or arrangements made for supervision of special research by individual graduate students in any subject.

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All matters presented in this Bulletin are subject to change as the University or the School of Law may deem expedient.

# Enrollment 1952-1953



## *First Year*

Barton, Gerald John (Duke University), Bronx, New York  
Bell, William Goebel, Jr. (Duke University), Carrollton, Kentucky  
Boyd, Melvin Thomas (Duke University), Henderson, North Carolina  
Campbell, Forrest Edwin (University of Portland), Dunn, North Carolina  
Carnahan, John Anderson (Duke University), Cleveland Heights, Ohio  
Cates, Jerry H. (Duke University), Richmond, Virginia  
Coleman, John William (Duke University), Arlington, Virginia  
Cooper, Jack Rainier (Duke University), Riverside, New Jersey  
Crawford, Narvel James, Jr. (Duke University), Asheville, North Carolina  
Cummings, Alton Tunnell (Duke University), Asheboro, North Carolina  
Deutsch, Murray (Northwestern University), Coral Gables, Florida  
Dickos, Harry Frank (Geneva College), Beaver Falls, Pennsylvania  
Franzblau, Sidney Myron (Muhlenberg College), Newark, New Jersey  
Friedrich, John Peter (Colgate University), Fayetteville, New York  
Goodwin, David Coburn (Harvard University), Miami Beach, Florida  
Hager, Dudley Pierce (Duke University), Louisville, Kentucky  
Hahn, Raymon Jenkin (Duke University), Pensacola, Florida  
Halberstadter, Sanford Ira (Rutgers University), Elizabeth, New Jersey  
Hart, Janet Olive (Swarthmore College), Durham, North Carolina  
Herrero, Miguel Enrique (Duke University), Hato Ray, Puerto Rico  
Kuffner, John Frederick (Ohio University), St. Marys, Ohio  
Mitchell, Donald Walcutt (Duke University), Summit, New Jersey  
O'Donnell, Jon Park (Duke University), Alexandria, Virginia  
Reynolds, Joseph Charles (Duke University), Asheville, North Carolina  
Sellers, Bayard Bellamy (University of California at L. A.), Los Angeles, California  
Snyder, Theodore Allen (University of Chicago), Walhalla, South Carolina  
Steffey, Fred Henry (Duke University), Durham, North Carolina  
Swanson, Edward Nathaniel (Duke University), Pilot Mountain, North Carolina  
Walker, Clarence Wesley (Duke University), Durham, North Carolina  
Warren, Harold Flack, Jr. (Duke University), Merchantville, New Jersey  
Wilkins, Roland Robert (Albion College), Decatur, Georgia  
Woolard, William Leon (Duke University), Pinetown, North Carolina

## *Second Year*

Baylog, Richard Louis (Kent State University), Cleveland, Ohio  
Biddison, Mark (Duke University), New York, New York  
Booker, Frank Edwin (Southeast Missouri State College), Cape Girardeau, Missouri  
Brooks, Sidney Barclay (Duke University), Wilson, North Carolina  
Calloway, Vern Daniel, Jr. (Duke University), Orlando, Florida  
Clark, Seymour Garland, Jr. (Duke University), Brooklyn, New York  
Curran, Marshall Glenn, Jr. (College of Wooster), New Castle, Pennsylvania  
Davis, Robert Earl (Duke University), Portsmouth, Virginia  
Gibson, Harold Eugene, Jr. (Duke University), Kenton, Ohio  
Gordon, Abraham Isidore (University of Bridgeport), Bridgeport, Connecticut  
Hardin, Paul, III (Duke University), Birmingham, Alabama  
Harris, Charles Anthony (Duke University), Denmark, South Carolina  
Hunter, Eugene Griggs, Jr. (Duke University), Kingsport, Tennessee  
Johnston, Hugh Wolfe (Duke University), Cramerton, North Carolina  
Kaelin, William George (Duke University), East Rockaway, New York  
Kelly, Walter Richard, Jr. (Duke University), Cherryville, North Carolina  
Keziah, Sanford Perry, Jr. (Duke University), High Point, North Carolina  
McFadden, Robert Lawrence (Duke University), Rock Hill, South Carolina  
Mast, Everett Leo (Western Carolina Teachers College), Sugar Grove, North Carolina  
Maxwell, John Wallace (Duke University), Bethesda, Maryland  
Olive, Leon (University of Alabama), Durham, North Carolina  
Rosenberg, Marvin (University of Richmond), Jamaica, New York  
Rushing, Charles Evan (Augustana College), Moline, Illinois  
Sarazen, John Carl (Duke University), White Plains, New York  
Savitt, Herbert Saul (Duke University), Ansonia, Connecticut  
Shull, Joseph Roger (Duke University), Bridgeport, Connecticut  
Smith, Bill Lee (Juniata College), Fayette City, Pennsylvania  
Street, John Scott, Jr. (Duke University), Chillicothe, Ohio  
Stride, Richard Joseph (Duke University), Saco, Maine

Sulzer, Elizabeth Derr (Duke University), Lancaster, Pennsylvania  
 Swanstrom, John Eric (Clark University), Worcester, Massachusetts  
 Warren, James Gates (Duke University), Washington, D. C.  
 Williams, Donald Eugene (Muskingum College), Enon Valley, Pennsylvania  
 Wood, Charles Barnette (University of North Carolina), Roxboro, North Carolina  
 Woolard, Frazier Thomas (William and Mary), Washington, North Carolina  
 Young, James Frank (Duke University), Havertown, Pennsylvania

### *Third Year*

Biloon, Harold Levin (Harvard University), Norwich, Connecticut  
 Brooks, Val Carlton (Duke University), Wilson, North Carolina  
 Butler, Clifford Leroy (Northwestern Law School), Wilmette, Illinois  
 Chadwick, Harry Roberts, Jr. (Duke University), Smyrna, North Carolina  
 Chambers, Jack Horne (Duke University), Clothier, West Virginia  
 Corley, Donald George (Duke University), Jackson, Michigan  
 Cromartie, Martin Luther, Jr. (Duke University), Tarboro, North Carolina  
 Dawson, John Burnette, Jr. (Duke University), Locust Valley, L. I., New York  
 Dickens, Wade Hampton, Jr. (Duke University), Scotland Neck, North Carolina  
 Elf, Robert Duane (University of North Carolina), Jamestown, New York  
 Galifianakis, Nick (Duke University), Durham, North Carolina  
 Gwyn, Julius Johnston (Duke University), Reidsville, North Carolina  
 Hagel, Harry (University of Connecticut), Cromwell, Connecticut  
 Hubbard, Robert Carl (Duke University), Lancaster, South Carolina  
 Hudspeth, George Lee (Texas Christian University), Yadkinville, North Carolina  
 Isley, Hugh Galloway, Jr. (Duke University), Raleigh, North Carolina  
 Kellam, Floyd Eaton, Jr. (Duke University), Princess Anne, Virginia  
 May, Cecil Dalton (Duke University), New Bern, North Carolina  
 Renfrow, Robert Perry (Duke University), Raleigh, North Carolina  
 Shaw, John Daniel, Jr. (Duke University), Sistersville, West Virginia  
 Shuford, William Albert (Duke University), Thomasville, North Carolina  
 Smith, Calvin Earl (Franklin and Marshall College), Hamburg, Pennsylvania  
 Smith, Lee Creecy (Duke University), Raleigh, North Carolina  
 Stipe, Robert Edwin (Duke University), Easton, Pennsylvania  
 Thompson, Richard Carroll (Lenoir-Rhyne College), Hickory, North Carolina  
 Wagner, William Deau (Colgate University), Trenton, New Jersey  
 Walker, James Warren (University of Scranton), Susquehanna, Pennsylvania  
 Weaver, Lucius Stacy, Jr. (Duke University), Durham, North Carolina  
 Webster, Richard Carlton (Duke University), Rochester, New York  
 Williamson, Edward Lorenza (Wake Forest College), Evergreen, North Carolina  
 Zimmerman, James Lawrence (Duke University), Durham, North Carolina

### *Graduate Students*

Cox, Robert Doyle (University of Oklahoma, U. of Oklahoma Law School), Wewoka, Oklahoma  
 Oshiro, Robert Chosei (University of Hawaii, Duke Law School), Oahu, Hawaii  
 Powers, Leonard Stewart (Duke University, University of North Carolina Law School), Youngsville, North Carolina

### *Unclassified Students*

Kotun, Albert Andrew (Duquesne University), Aliquippa, Pennsylvania  
 Little, James Crawford (Duke University, Duke Law School), Raleigh, North Carolina  
 Stevens, David Boyette (University of North Carolina, U. of North Carolina Law School), Durham, North Carolina  
 True, Joel Brundage, Jr. (Duke University), Springfield, Tennessee  
 Vickers, Claude Wallace (University of North Carolina), Durham, North Carolina

### *German Students*

Fuchss, Gerhard Otto—Hanover, Germany  
 Grahn, Alfred Martin—Celle, Germany  
 Hamburger, Hans-Helmut Emil—Munchen, Germany  
 Jartwig, Bernd—Duisburg, Germany  
 Josephi, Wilhelm—Gottingen, Germany  
 Klug, Hans—Munchen, Germany  
 Lutz, Helmut Hermann—Stuttgart, Germany  
 Magens, Ernst Gerd—Hamburg, Germany  
 Mast, Heribert Joachim—Bochum, Germany  
 Reimer, Bernhard—Bremen, Germany  
 Tetzlaff, Heinz Ludwig—Kiel, Germany  
 Wersdoerfer, Heinz—Kohn-Worringen, Germany  
 Wolf, Goetz Hermann Marcel—Tuebingen, Germany









# Duke University School of Law

Publishes

## Law and Contemporary Problems

Each issue of this publication is devoted to a symposium exploring not only the legal but also the economic and other social-science aspects of current problems that cross the lawyer's desk.

Symposiums published or to be published in 1953 include

Divorce—A Re-Examination of Basic Concepts

The Federal Employers' Liability Act, Part I

The Federal Employers' Liability Act, Part II

The Close Corporation



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## Law and Contemporary Problems

DUKE STATION

DURHAM, N. C.



**BULLETIN**  
**OF**  
**DUKE UNIVERSITY**



**The School of Forestry**

**ANNOUNCEMENTS FOR 1953-54**

# Annual Bulletins

For GENERAL BULLETIN of Duke University, apply to *The Secretary*, Duke University, Durham, N. C.

For BULLETIN OF UNDERGRADUATE INSTRUCTION, apply to *The Secretary*, Duke University, Durham, N. C.

For BULLETIN OF THE COLLEGE OF ENGINEERING, apply to *The Secretary*, Duke University, Durham, N. C.

For BULLETIN OF THE GRADUATE SCHOOL OF ARTS AND SCIENCES, apply to *The Dean of the Graduate School*, Duke University, Durham, N. C.

For BULLETIN OF THE SCHOOL OF FORESTRY, apply to *The Dean of the School of Forestry*, Duke University, Durham, N. C.

For BULLETIN OF THE SCHOOL OF LAW, apply to *The Dean of the School of Law*, Duke University, Durham, N. C.

For BULLETIN OF THE SCHOOL OF MEDICINE, apply to *The Dean of the School of Medicine*, Duke University, Durham, N. C.

For BULLETIN OF THE SCHOOL OF NURSING, apply to *The Dean of the School of Nursing*, Duke University, Durham, N. C.

For BULLETIN OF THE DIVINITY SCHOOL, apply to *The Dean of the Divinity School*, Duke University, Durham, N. C.

For BULLETIN OF THE SUMMER SESSION, apply to *The Director of the Summer Session*, Duke University, Durham, N. C.

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BULLETIN  
OF  
DUKE UNIVERSITY

THE SCHOOL OF FORESTRY



ANNOUNCEMENTS FOR 1953-54

DURHAM, NORTH CAROLINA  
1953



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# School of Forestry Calendar



1953

- |       |    |   |
|-------|----|---|
| June  | 10 | Wednesday—Registration of students for summer work in forestry.   |
| June  | 11 | Thursday—Field work in Plane Surveying (C.E. S110) begins.  |
| June  | 23 | Tuesday—Field work in Forest Soils (S261A) begins.  |
| July  | 8  | Wednesday—Field work in Forest Surveying (For. S150) begins.  |
| Aug.  | 12 | Wednesday—Field work in Forest Mensuration (For. S151) begins.  |
| Sept. | 15 | Tuesday—Registration of students in the School of Forestry.   |
| Sept. | 17 | Thursday—Instruction begins in the School of Forestry.  |
| Oct.  | 9  | French examinations for candidates for doctors degrees. 4:00 P.M.<br>Room 210, Divinity School. Candidates register in the Graduate<br>Office for these examinations not later than October 1.    |
| Oct.  | 16 | German examinations for candidates for doctors degrees, 6:30 P.M.,<br>106 Social Science Building. Candidates register in the Graduate<br>Office for these examinations not later than October 9. |
| Nov.  | 26 | Thursday—Thanksgiving Day: a holiday.   |
| Dec.  | 11 | Friday—Founders Day.  |
| Dec.  | 19 | Saturday, 12:30 P.M.—Christmas recess begins.   |

1954

- |       |    |   |
|-------|----|---|
| Jan.  | 4  | Monday, 8:00 A.M.—Instruction is resumed.   |
| Jan.  | 18 | Monday—School of Forestry mid-year examinations begin.  |
| Jan.  | 29 | Friday—School of Forestry mid-year examinations end.  |
| Jan.  | 30 | Saturday—Registration of students in the School of Forestry.  |
| Feb.  | 2  | Tuesday—Second semester begins.   |
| Feb.  | 12 | French examinations for candidates for doctors degrees. 4:00 P.M.<br>Room 210, Divinity School. Candidates register in the Graduate<br>Office for these examinations not later than February 3.     |
| Feb.  | 19 | German examinations for candidates for doctors degrees, 6:30 P.M.,<br>106 Social Science Building. Candidates register in the Graduate<br>Office for these examinations not later than February 14. |
| March | 27 | Saturday, 12:30 P.M.—Spring recess begins. School of Forestry<br>Coastal Plain field work begins.   |
| April | 5  | Monday, 8:00 A.M.—Instruction is resumed.   |
| April | 12 | Monday, 8:00 A.M.—Coastal Plain field work ends.  |
| April | 15 | Thursday—Last day for submitting Doctor of Forestry theses.   |
| May   | 15 | Saturday—Last day for submitting Master of Forestry theses.   |
| May   | 24 | Monday—School of Forestry final examinations begin.   |
| June  | 3  | Thursday—School of Forestry final examinations end.   |
| June  | 5  | Saturday—Commencement begins.   |
| June  | 6  | Sunday—Commencement sermon.   |
| June  | 7  | Monday—Commencement address and graduating exercises.   |

# Officers of Administration



EDENS, ARTHUR HOLLIS, A.B., A.M., Ph.D., LL.D. <i>President of the University</i>	West Campus
WANNAMAKER, WILLIAM HANE, A.B., A.M., Litt.D. <i>Vice-Chancellor of the University</i>	West Campus
GROSS, PAUL MAGNUS, B.S., A.M., Ph.D. <i>Vice-President in the Division of Education</i>	Hope Valley
JORDAN, CHARLES EDWARD, A.B., LL.D. <i>Vice-President in the Division of Public Relations</i>	813 Vickers Avenue
HERRING, HERBERT JAMES, M.A., LL.D. <i>Vice-President in the Division of Student Life</i>	2010 Myrtle Drive
BROWER, ALFRED SMITH, A.B. <i>Business Manager and Comptroller</i>	West Campus
MARKHAM, CHARLES BLACKWELL, A.B., A.M. <i>Treasurer</i>	204 Dillard Street
KORSTIAN, CLARENCE FERDINAND, B.S.F., M.F., M.A., Ph.D. <i>Dean of the School of Forestry</i>	4 Sylvan Road

## COMMITTEE OF THE BOARD OF TRUSTEES ON THE SCHOOL OF FORESTRY

R. G. CHERRY, B. F. FEW, N. E. EDGERTON, J. R. SMITH



# Faculty of the School of Forestry



ANDERSON, ROGER FABIAN, B.S., M.S., Ph.D. <i>Associate Professor of Forest Entomology</i>	2528 Perkins Road
CHAIKEN, LEON EDWARD, B.S.F., M.F. <i>Associate Professor of Forest Management</i>	912 Monmouth Avenue
COILE, THEODORE STANLEY, B.S.F., M.F., Ph.D. <i>Professor of Forest Soils</i>	Laurel Ridge Farm, Hillsboro Road
HARRAR, ELLWOOD SCOTT, B.S., M.S., Ph.D. <i>Professor of Wood Technology</i>	2228 Cranford Road
KORSTIAN, CLARENCE FERDINAND, B.S.F., M.F., M.A., Ph.D. <i>Professor of Silviculture</i>	4 Sylvan Road
KRAMER, PAUL JACKSON, A.B., M.Sc., Ph.D. <i>Professor of Botany</i>	2251 Cranford Road
*RUDOLPH, VICTOR JOHN, B.S., M.F., D.F. <i>Assistant Professor of Forest Management</i>	617 Swift Avenue
SCHUMACHER, FRANCIS XAVIER, B.S. <i>Professor of Forestry</i>	6 Sylvan Road
STOLTENBERG, CARL HENRY, B.S., M.F., Ph.D. <i>Assistant Professor of Forest Economics</i>	879 Louise Circle
WACKERMAN, ALBERT EDWARD, B.S., M.F. <i>Professor of Forest Utilization</i>	Dover Road, Hope Valley
WOLF, FREDERICK ADOLPHUS, A.B., A.M., Ph.D. <i>Professor of Botany</i>	924 Urban Avenue

## *Duke Forest Staff*

KORSTIAN, CLARENCE FERDINAND, B.S.F., M.F., M.A., Ph.D. <i>Director</i>	4 Sylvan Road
CHAIKEN, LEON EDWARD, B.S.F., M.F. <i>Assistant Director</i>	912 Monmouth Avenue
*RUDOLPH, VICTOR JOHN, B.S., M.F., D.F. <i>Assistant Director</i>	617 Swift Avenue
BLACKMON, MANLY RANKIN <i>Superintendent</i>	2321 Erwin Road
MALAC, MRS. MARIAN, A.B. <i>Bookkeeper</i>	820 Wilkerson Avenue

## *Duke Arboretum*

HARRAR, ELLWOOD SCOTT, B.S., M.S., Ph.D. <i>Director</i>	2228 Cranford Road
---	--------------------

\* Resigned effective August 31, 1952.

*Technical Assistants in Forestry*

MALAC, BARRY, M.F.	820 Wilkerson Avenue
*CARVELL, KENNETH LLEWELLYN, B.A., M.F.	818 Wilkerson Avenue
*DAVIS, FRANCIS GUY, B.S.	1009 Glendale Avenue

*Assistants in School Administration*

CONRAD, MRS. WINNIE W. <i>Recorder and Secretary to the Dean</i>	Hillsboro, N. C.
*AULBACH, MRS. JANE <i>Secretary</i>	876 Louise Circle
McMANNEN, MRS. NANCY A. <i>Secretary</i>	1905 Hart Street
*HARRELL, MRS. JEAN <i>Statistical Clerk</i>	1405 North Duke Street
* Employed part-time.	

# Forestry in Duke University



## *General Statement*

DUKE UNIVERSITY, located at Durham, North Carolina, comprises Trinity College, the Woman's College, the College of Engineering, the Graduate School of Arts and Sciences, the Divinity School, and the professional schools of Forestry, Law, Medicine, and Nursing. Nearly every state of the Union and several nations are represented in the student body of more than five thousand, not including the enrollment in the Summer Session.

The University goes back in its origin to 1838, when Union Institute was founded in Randolph County by the Methodists and Friends. In 1851 the institution became Normal College, one of the first schools in America for the training of teachers. In 1859 the name was changed to Trinity College and so continued until 1924, when the College became a part of Duke University.

By virtue of an indenture of trust, executed December 11, 1924, by James Buchanan Duke, a great benefaction was placed at the disposal of humanity by providing for hospitalization, church work in rural communities, and education. The principal feature of the educational provision was the creation of Duke University.

The University occupies two campuses. The Woman's College campus, with its 108 acres, was formerly the campus of Trinity College. About a mile to the west are the new units of the University. The new campus, totaling 467 acres, also known as the West Campus, was first occupied in September, 1930.

Forestry in Duke University began early in 1931, when, through placing the Duke Forest under intensive management for forestry purposes, a substantial beginning was made in laying the foundation for educational work and research in forestry.

An academic-forestry curriculum, designed for students intent upon pursuing the study of forestry, particularly as a profession after graduation, was organized in Trinity College of Duke University in 1932 (see *Announcement on Undergraduate Instruction in Duke University*). This course of study provides only for instruction in fundamental and auxiliary subjects basic to a proper understanding of the highly specialized work in technical forestry. Duke University offers no professional degree in technical forestry available to undergraduates.

Training in technical forestry leading to the professional degrees, Master of Forestry and Doctor of Forestry, is offered in the School of Forestry, and is open to graduates of recognized scientific schools or colleges, universities, and professional schools of forestry and to other men who meet the entrance requirements of the school (see p. 20).

Duke University is also prepared to offer, through the Graduate School of Arts and Sciences, graduate work in the more scientific aspects of forestry leading to the Master of Arts and Doctor of Philosophy degrees. This work is available to graduates of schools of forestry of recognized standing, and to college or university graduates holding the Bachelor's degree with their major work in appropriate scientific subjects. Undergraduate subjects which the college student, who does not have forestry training but who is contemplating work toward either degree in forestry, should take in preparation for this work may be illustrated as follows: At least two full years in botany, including general morphology or anatomy, the taxonomy, physiology, and ecology of plants; at least one course in zoology or general biology; courses in chemistry, physics, geology, economics, mathematics; and at least two years of French or German.

Several staff members of the Southeastern Forest Experiment Station are engaged in cooperative research projects in the Duke Forest. Specialists from this station and other prominent members of the U. S. Forest Service and representatives of forest and wood-using industries give occasional scheduled lectures at the School.

### *Educational Facilities*

The School of Forestry is located in the Social Science and Biology Buildings on the West Campus. The School is provided with instruments and tools for use in both field and laboratory work in silvics, silviculture, harvesting, and forest mensuration. Modern surveying instruments and accessory equipment are available for work in forest surveying.

Fully equipped laboratories are provided for work in forest entomology, wood anatomy and properties, timber mechanics, and bonding of wood. A modern forest soils laboratory equipped for physical and chemical studies is available. In the field of seasoning and preservation of wood a commercial-sized, single-compartment dry kiln and a fully equipped experimental pressure treating cylinder are available for instruction and research.

Facilities are also available for advanced work in plant physiology, plant anatomy, plant taxonomy, genetics, plant ecology, plant pathology, and the several branches of zoology.

The School of Forestry Library contains a growing collection of material on forestry and related subjects. It includes important books and periodicals in English and in French, German, and other foreign languages. The Library is well provided with American material, including Federal and State documents and reports. Over 150 periodicals and serials of importance in forestry and related fields are received by subscription or exchange.

Greenhouses, connected to the Biology Building through a soil-storage and work room, provide adequate space for experimental work.

A nursery has been established by the University for joint use of the Sarah P. Duke Floral Garden, the Botany Department, and the School of Forestry. The forestry section of this nursery is used mainly for the growing of planting stock for the Arboretum and trees needed for research or other special purposes.

West Virginia Pulp and Paper Company has made available to Duke University a field headquarters for work in forests of the South Atlantic Coastal Plain located 18 miles northwest of Summerville, South Carolina. This company has extensive forest holdings under close supervision of a staff of technical foresters in South Carolina and permits access to its lands for instruction and research in forestry and allied fields. This headquarters camp with modern facilities for as many as 45 men is used as a base primarily for utilization work each spring and for special work in silviculture. The quarters may be available at other times for students and faculty members of the Duke School of Forestry working on special problems or doing advanced work in any of the fields of forestry concerned with coastal plain problems. The establishment of this headquarters camp in the coastal plain region makes it possible for the School of Forestry to provide instruction and conduct research in this important forest area in which many privately owned forests as well as public forests are intensively managed for the production and utilization of a wide range of forest products. The Southern Railway Demonstration Forest is within easy reach of this center and will also be available for work, particularly with longleaf pine.

The School sponsors occasional lectures on forestry and conservation by speakers of national reputation.

An active Forestry Club is maintained as a student organization to bring the members of the School and students in the undergraduate academic-forestry curriculum into closer contact and to afford opportunities for extracurricular activities not otherwise available.



## *The Duke Forest*

The Duke Forest, located in Durham and Orange counties, North Carolina, consists of five main units: namely, the Durham, New Hope Creek, Hillsboro, Eno, and Blackwood divisions. Early in the development of Duke University it was recognized that the possession of such an area offered an unusual opportunity for the development of educational work in forestry.

Situated on the lower Piedmont plateau at elevations ranging from 280 to 760 feet, and composed of second-growth shortleaf, loblolly, and Virginia pines, oak, gum, hickory, maple, yellow poplar, ash, and other hardwoods, the Forest is representative of the various types of timber growth found throughout the region. Over a hundred different species of trees are found within or near the Forest. The land is rolling and there is relatively little rock outcrop, swamp, or other land of low productivity for timber growing. The total area of the Forest proper, exclusive of the University campus, is approximately 7,600 acres.

In developing the Duke Forest the following objectives are being emphasized:

1. Demonstration of various methods of timber growing, silvicultural treatment, and forest management applicable to the region.
2. Development as an experimental forest for research in the problems of timber growing and in the sciences basic thereto. In spite of the present timber situation and the accompanying economic ills, the technical and scientific knowledge required to handle forest crops efficiently on a permanent basis is still largely lacking. The Duke Forest affords a place where studies may be carried on to augment this knowledge for the large region of which the local forest and soil conditions are representative.
3. To serve as an outdoor laboratory where field work can be carried on by forestry students under the guidance of the Forestry Faculty. One of the most difficult problems in forestry education is to bring the students into contact with the realities of professional activities. With all operations in the Forest, both routine and research, recorded annually, it is possible for a qualified man to get in a short time a degree of practical knowledge or technical expertness which only an organized forest can provide.

The Duke Forest is particularly well located to serve as a field laboratory, since most of it is adjacent and easily accessible to the University campus. In fact, the Durham division practically surrounds the West Campus, which was laid out in one corner of the Forest. A paved State highway runs lengthwise through the Durham division, and several good roads cross the Forest. About fifteen miles of im-

proved woods roads make all parts of the Forest readily accessible. A five-minute walk will take one well into the Forest, and any part of the Durham or New Hope Creek divisions can be reached by automobile in from ten to twenty minutes. At few other places in America can be found provisions for forestry training and research which includes the necessary forest literally at the door of a large university with its instructional, laboratory, and library facilities.

Approximately 1,400 acres of the Forest was open land, which had been under cultivation prior to the establishment of the Forest. Such of the open land as was not restocking naturally to forest trees was planted. Arbitrarily by mixing species and varying the spacing between the trees in the plantations, the foundation was laid for future research into many perplexing problems, such as species relationships and requirements, the most desirable spacing and species to use in this region, and the survival and relative rates of growth of the different species of trees. To date approximately 1,400 acres of such plantations have been established. Pulp-wood thinnings on a commercial basis are now being made in a number of the older pine plantations.

A large number of permanent sample plots, ranging in size from one-tenth acre to over one acre, have been laid out in the Forest to study various problems. The plots are distributed through all the forest types, and range in purpose from studies of the effects of various silvicultural practices to studies of rates of growth and yields of the different timber types. Accurate records are kept on all this work, which will provide excellent material for student research. In the future many of these plots can also be used to demonstrate desirable forestry practices.

The development of the Forest as a demonstration of practical forest management is well advanced. Forest type and timber stand maps are available for each of four divisions except for recently acquired areas. A detailed soils map for the entire area is being prepared. Except for very recent acquisitions, each division has been subdivided into permanent compartments, and plans for the silvicultural treatment of each stand and working group have been formulated. The third ten-year inventory of the Forest resources has been completed and the results of management practices during the past twenty years are being assembled and will soon be available.

Cutting operations within the limits of annual growth are being carried on, and, as markets for definite products are developed or expanded, such operations will be increased. To date, approximately 1,300 acres in the pine types have been thinned. These thinnings serve the dual purpose of contributing to the operation of the Forest as a going business and of demonstrating sound forestry practices. An

efficient fire protection organization has been developed in cooperation with the State and Federal governments, and forest fire losses are being held to a minimum. In managing the Forest, public recreation activities are recognized. Several recreation areas have been established, and over ten thousand picnickers, hikers, and horseback riders use the area annually. The Durham and New Hope Creek divisions of the Forest, together with several hundred acres of neighboring privately owned land, are incorporated in an Auxiliary State Game Refuge, and a number of wildlife management practices are being applied to designated areas in the Forest to provide the necessary food and protection which will ultimately result in an increased amount of game in the surrounding territory. Records are being maintained of all activities in the Forest, and these records will become increasingly useful as they are improved as a result of further experience and research. With the diversification and expansion of activities now going on, students have an opportunity to study an operating forest in all its phases and to obtain a grasp of the proper balance between theory and practice.

The Forest is admirably located for research in forest soils. An unusually large number of different soil conditions occur in the Forest because of the diversity of parent rock, topography, and past land culture. Major soil differences are due to the nature of the parent material which includes the basic rock of the Carolina Slate formation, granites, Triassic sedimentary rock, and many types of basic intrusives.

An exceptionally good opportunity exists for the conduct of forest research by graduate students due to the wide range in forest types, ages, and soil conditions within the Forest and its proximity to the laboratories, greenhouses, and other scientific equipment and library facilities of the University. Research is being conducted on special problems, particularly in the fields of silvics, forest soils, forest-tree physiology, forest entomology, forest pathology, silviculture, forest management, and wood technology. The Forest is used not only for research in forestry but also for research in forest biology by members of allied departments.

### *The Arboretum*

Of outstanding value in the teaching of both forestry and botany in the future is the provision for the development of an arboretum. Recently the Board of Trustees of Duke University voted to set aside permanently an area of over 90 acres to be used for arboretum purposes. The area lies between the East and West campuses along either side of Myrtle Drive. This is naturally a long-time project, and many

years will elapse before the Arboretum will be most useful and most attractive. The University Trustees' Committee on Forestry in its report to the Board refers to the Arboretum as follows:

"The Arboretum should serve as a station for the study of trees and woody plants as individuals and in small groups in their scientific relations, economic properties, and cultural characteristics, requirements, and possibilities. It should render an economic service by acting as a research laboratory where trees and shrubs can be studied from the viewpoint of a fuller utilization of their commercial possibilities. It should render a cultural service by serving as a center where foresters, landscape architects, nurserymen, gardeners, and the general public may increase their knowledge of indigenous trees and shrubs and where they may become acquainted with the foreign species that can be grown here. Within the University the Arboretum will supply living specimens and materials for several branches of botany and forestry."

The development of the Arboretum will proceed along these lines as rapidly as available funds and planting stock will permit.

# Fellowships, Scholarships, and Graduate Assistantships in Forestry



A NUMBER of fellowships, scholarships, and research assistantships are available to men who offer promise of becoming leaders in the forestry profession. These will be awarded for high character and marked scholastic ability as judged by education, experience, and personal references.

Holders of the awards will pay tuition and such additional fees as are regularly required.

The awards are of three classes with stipends and special conditions as follows:

(1) Fellowships of \$600 to \$1,000 each. Each recipient must have previously completed work equivalent to that required at Duke University for a Master's degree with major in forestry or in a discipline basic to forestry. He will devote his time to an approved program of study and research in any of the branches of forestry. He is expected to become a candidate for the degree of Doctor of Forestry or Doctor of Philosophy.

(2) Scholarships of \$250 to \$700 each. Each recipient will normally devote his time to an approved program of study leading to the degree of Master of Forestry or Master of Arts with a major in forestry.

Holders of fellowships and scholarships will be expected to do a limited amount of assisting.

(3) Graduate assistantships of \$1,000 each. Each recipient will devote half-time to research or other work of the School of Forestry. He will be permitted to enroll for not more than 20 semester hours in a school year on a program of study, or study and research, leading to the degree of Master of Forestry, Master of Arts, Doctor of Forestry, or Doctor of Philosophy.

The following arrangements are common to the above fellowships, scholarships and research assistantships in forestry:

(1) Each applicant must have met the entrance requirements of the School of Forestry and must show high scholarship. Preference will be given to men who have already obtained technical or professional training in forestry or who have been previously enrolled in the School of Forestry.



(2) It is highly desirable that each applicant state as specifically as possible the field in which he wishes to study. The definite selection of a major field of work—one that is specific in purpose and involves training both in fundamentals and in technique—is very helpful to the Committee on Awards.

(3) Application blanks for fellowships, scholarships, and research assistantships may be obtained by writing to the Dean of the School of Forestry, Duke University, Durham, North Carolina. When the blank has been filled out by the applicant, it should be returned to the above address, and an *official transcript of record* showing college or university credits must accompany it or be forwarded promptly. The application and transcript must be filed not later than March 1 for consideration for the following academic year. In case vacancies occur, applications submitted on a later date may be considered.

Each year one fellowship in the amount of \$1,200 is awarded by the Union Bag and Paper Corporation, of Savannah, Georgia, upon the recommendation of a special awards committee, to a graduate forester, selected on the basis of merit, ability and interest in the field of industrial forestry, for graduate study at the School of Forestry of Duke University. A fund of \$400.00 in addition to the fellowship stipend is available for payment of actual expenses incurred in the conduct of the recipient's research.

To be eligible for the fellowship an applicant must meet the following qualifications:

a. He must be a graduate of the George Foster Peabody School of Forestry of the University of Georgia; or a resident of the State of Georgia and have earned at least a bachelor's degree in forestry at another institution of higher learning.

b. He must have the quality point grade average required for admission to the School of Forestry.

c. He must be of good character and show promise of ability to do creditable graduate work in forestry. This is evaluated by the awards committee on the basis of letters of recommendation, scholastic standing, a personal interview, and in such other ways as the committee may specify.

d. He must be interested in a career in a field of forestry that is concerned with the management, harvesting, or utilization of industrial forest properties, particularly in the South.

Those interested in applying for the Union Bag and Paper Corporation Forestry Fellowship should write Professor A. E. Wackerman, Secretary of the Awards Committee, for application forms or for further information. Applications, with supporting papers, must be in the hands of the Committee not later than March 1 preceding the

academic year for which the Fellowship will be granted. Announcement of the award will be made not later than April 1 of the same year.

A limited number of special research assistantships, sponsored by several pulp and paper companies, are available for work on a forest soil drainage project in the southeastern coastal plain. Men selected for the project will study toward masters' or doctors' degrees and students may use certain phases of the project to meet their research and thesis requirements. Further information will be supplied interested men by Professor T. S. Coile.

# Tuition, Fees and Expenses



THE following table shows the general fees and charges collected from all students. All fees for each semester are due and payable, unless otherwise specified, at the time of registration at the beginning of that semester, and no student is admitted to classes until arrangements have been made with the Treasurer of the University for the settlement of fees.

## *General Fees*

Tuition, per semester.....	\$175.00
General Fee, per semester.....	60.00

Forestry students may obtain admission to all regularly scheduled University athletic contests held on the University grounds during the entire academic year by payment of the athletic fee of \$10.00 per year plus any Federal taxes that may be imposed. This fee is payable in the fall semester.

Due to rising costs a readjustment in charges is being considered. In the event of an adjustment applicants will be notified.

**TRANSCRIPTS:** A student desiring to transfer from Duke University to another institution is entitled to one transcript of his record. A charge of one dollar is made for each additional copy.

**PAYMENTS TO FELLOWS AND SCHOLARS:** Payments by the University of stipends to fellows, research assistants, and scholars are made in four installments, on November 25, January 25, March 25, and May 25. Fellows and scholars are required to pay the regular tuition fee and such additional fees as are ordinarily required of graduate students.

## *Living Accommodations*

The Men's Graduate Center containing bedroom facilities for four hundred men, complete with lounges, study rooms, recreational rooms, post office and dining hall, is available to men of the graduate and professional schools. The rooms are equipped for two persons and the rental charge is one hundred twenty-five dollars (\$125.00) each semester or sixty-two dollars and fifty cents (\$62.50) each person each semester.

Rooms may be reserved by new applicants only if they have been officially accepted for admission by the University and if they have paid a room deposit of twenty-five dollars (\$25.00). The room deposit is refundable, providing application for refund is made sixty

days prior to the registration date of the semester for which the room was reserved or within thirty days after official withdrawal from the University Residence Hall.

A resident student, in order to retain his room for the succeeding semester, must make application at the office of the Housing Bureau for confirmation of the reservation. In order to obtain a refund of his initial room deposit, he must cancel his room reservation sixty days prior to the registration date of the semester for which the room was reserved. All rooms which have not been reserved on or before an announced date will be considered vacant for the succeeding semester and will be reserved in the order in which applications are made.

Rooms are rented for no shorter period than one semester, unless by special arrangement with the Housing Bureau. A period of occupancy other than a semester and without special arrangement will be charged at a minimum rate of twenty-five dollars (\$25.00) or at a rate of one dollar each day of occupancy.

The exchange of rooms may be arranged at the Housing Bureau within fifteen days after the official opening of the semester or quarter of the school term. Thereafter a charge of two dollars (\$2.00) may be made. Persons exchanging rooms without the approval of the Housing Bureau will be subject to charges for both rooms.

The authorities of the University do not assume responsibility for the persons selected as roommates. Each student is urged to select his roommate when the room is reserved.

Beds and mattresses (39" x 74"), tables, chairs, dressers, mirrors, and window shades are provided by the University. The student supplies linens, blankets and pillows. Rugs, if desired, are not to exceed fifty square feet in size.

Regulations governing the occupancy of rooms will be supplied directly from the Housing Bureau when room reservations are made. Occupants are expected to abide by these regulations.

**ESTIMATED EXPENSES FOR AN ACADEMIC YEAR:** The necessary expenses of a graduate student are moderate: the University dormitories provide thoroughly comfortable and wholesome living conditions at a minimum cost, while all charges made by the University have been kept low. Incidental expenses naturally depend upon the tastes and habits of the individual. The following table gives the necessary college expenses for one year:

	<i>Low</i>	<i>Moderate</i>	<i>Liberal</i>
Tuition .....	\$ 350.00	\$ 350.00	\$ 350.00
General Fee .....	120.00	120.00	120.00
Room-rent .....	100.00	125.00	175.00
Board .....	375.00	450.00	500.00
Laundry .....	25.00	30.00	35.00
Books .....	30.00	40.00	50.00
Athletic Fee (optional) .....	10.00	10.00	10.00
<i>Total</i> .....	<i>\$1,010.00</i>	<i>\$1,125.00</i>	<i>\$1,240.00</i>

# Requirements for Admission to the School of Forestry



THE admission requirements of the School of Forestry for work toward the Master of Forestry degree presuppose that an applicant is either:

1. A graduate of a scientific school, college, or university of high standing, but without professional training in forestry, or
2. A graduate of a professional school of forestry, or
3. A student who has successfully completed the pre-forestry curriculum of one of the institutions cooperating with the School of Forestry, as indicated on page 22.

Each applicant must present a certified transcript of his academic record showing the courses he has taken, the number of credit hours he has earned and the grades received. The total number of quality points\* must be at least one and one half times the total credit hours to meet the minimum scholastic standards required for admission to the School. An applicant also must have satisfactorily completed undergraduate work in minimum amount, as follows:

One year of biology, including at least one semester of botany, or one year of botany.

One year each of English composition and of chemistry.

One course each in physics and in the principles of economics.

Mathematics, through college algebra and trigonometry.

It is urged that an applicant without professional training in forestry present additional credits in the above subjects and in one or more of the following subjects: soils, geology, mineralogy, petrology, climatology, surveying, languages (particularly German and French), sociology, political science, philosophy, psychology, and zoology.

An applicant who is a graduate of a professional school of forestry will present a certified transcript of scholastic record showing the award of a degree. Before registering for the first semester of residence, such applicants will be required to select the branch or branches of forestry in which they wish to concentrate the major part of their work and to prepare their proposed programs in conference with the appropriate faculty adviser.

\* Grades for each hour of college credit and also for credit earned in the School of Forestry are valued in quality points as follows: "A," 3 points; "B," 2 points; "C," 1 point; "D," no points; and "F," no credit and —1 point.



Students must make application for admission in advance of the opening of the school year. Those students entering without acceptable courses in plane surveying, forest surveying, and forest mensuration must take the twelve weeks of work in these subjects in the Summer Session, and are required to submit their applications prior to May 1. Students entering with advanced standing in surveying and forest mensuration should make application before September 1. Application blanks will be sent upon request made to the Dean of the School of Forestry.

# Cooperative Plan of Study with Selected Colleges and Universities



Aware of the far reaching values to be derived from training in the liberal arts and sciences, the Duke School of Forestry, since its inception, has had the cooperation of Trinity College, the men's undergraduate college of arts and sciences of Duke University, in preparing students for professional careers in forestry. Under the plan a student devotes his first three years to a coordinated and carefully integrated program of study in the basic arts and sciences in Trinity College. The summer between his junior and senior year and the two following school years are spent in the School of Forestry. Upon the successful completion of this five-year course of study, a student has earned the Bachelor of Science degree from Trinity College and the professional Master of Forestry degree from the Duke School of Forestry.

Based upon the experience and success of this cooperative program with Trinity College, the School of Forestry in 1952 initiated similar programs of collaboration with a selected group of colleges and universities located throughout the United States. These programs offer students the numerous advantages of a broad background in liberal arts and sciences as preparation for later professional training. A student intent upon following such a course of study should make application to one of the colleges listed below. Admission requirements and other information pertinent to matriculation may be obtained from each of these institutions. Not later than the end of the first semester of the third year in the college or university of his choice, the student must make formal application for admission to the Duke School of Forestry. To qualify for admission under these programs, a student must have followed a planned course of study arranged in consultation with his advisor, must have the official recommendation of his college, and must meet the minimum requirements for admission to the Duke School of Forestry.

## *Cooperating Institutions*

(as of the date of publication)

Albright College. . . . . Reading, Pennsylvania  
Baldwin-Wallace College. . . . . Berea, Ohio

Bridgewater College . . . . .	Bridgewater, Virginia
Capital University, College of Arts and Sciences . . . . .	Columbus 9, Ohio
Centenary College of Louisiana . . . . .	Shreveport, Louisiana
Centre College of Kentucky . . . . .	Danville, Kentucky
Denison University, A College of Liberal Arts and Sciences . . . . .	Granville, Ohio
DePauw University, College of Liberal Arts . . . . .	Greencastle, Indiana
Doane College . . . . .	Crete, Nebraska
Duke University, Trinity College . . . . .	Durham, North Carolina
Elizabethtown College . . . . .	Elizabethtown, Pennsylvania
Florida Southern College . . . . .	Lakeland, Florida
Franklin and Marshall College . . . . .	Lancaster, Pennsylvania
Furman University . . . . .	Greenville, South Carolina
Gettysburg College . . . . .	Gettysburg, Pennsylvania
Heidelberg College . . . . .	Tiffin, Ohio
High Point College . . . . .	High Point, North Carolina
Hofstra College . . . . .	Hempstead, Long Island, New York
Juniata College . . . . .	Huntingdon, Pennsylvania
Kent State University, College of Liberal Arts . . . . .	Kent, Ohio
Lebanon Valley College . . . . .	Anncville, Pennsylvania
Lycoming College . . . . .	Williamsport, Pennsylvania
Marietta College . . . . .	Marietta, Ohio
Miami University, College of Arts and Science . . . . .	Oxford, Ohio
Middlebury College . . . . .	Middlebury, Vermont
Millsaps College . . . . .	Jackson, Mississippi
Muhlenberg College . . . . .	Allentown, Pennsylvania
Newberry College . . . . .	Newberry, South Carolina
Otterbein College . . . . .	Westerville, Ohio
Randolph-Macon College . . . . .	Ashland, Virginia
Reed College . . . . .	Portland 2, Oregon
Rollins College . . . . .	Winter Park, Florida
Stetson University, College of Liberal Arts . . . . .	DeLand, Florida
University of Kentucky, College of Arts and Sciences . . . . .	Lexington, Kentucky
University of Richmond, Richmond College . . . . .	Richmond, Virginia
Willamette University, College of Liberal Arts . . . . .	Salem, Oregon
William and Mary, College of . . . . .	Williamsburg, Virginia
William Jewell College . . . . .	Liberty, Missouri
Wittenberg College . . . . .	Springfield, Ohio
Wofford College . . . . .	Spartanburg, South Carolina

# Requirements for the Degree of Master of Forestry



THE degree of Master of Forestry (M.F.) is conferred upon students who have satisfactorily completed two years of study in technical forestry and one term of thirteen weeks' work in plane surveying, forest surveying, and forest mensuration in the Summer Session. In addition to the Summer Session work a total of not less than sixty semester hours' credit is required for the M.F. degree, of which at least fifty shall have been obtained in the School of Forestry. Each student, to qualify for the M.F. degree, must have obtained at least one and one half quality points per semester hour of credit under the quality-point system (see page 20).

Field studies of typical timber-harvesting, manufacturing, and other utilization operations in the South Atlantic Coastal Plain are conducted from the School's field headquarters during a two-week period in the spring semester as part of the work required of students registered in Harvesting and Processing Forest Products (Forestry 212). Other students may be permitted or advised to take this work for which one semester hour of credit may be earned by registering for it in Forestry 212A. A similar period of field work in forest soils, silviculture, forest management, and other subjects in the coastal plain is available to students.

No student may take less than fourteen or more than eighteen hours in any one semester without special permission of the School of Forestry Faculty. The following work will be required of all candidates for the M.F. degree:

## SUMMER SESSION

	S.H.
Plane Surveying (C.E. S110) .....	4
Forest Surveying (F. S150) .....	5
Forest Mensuration (F. S151) .....	4

## FIRST YEAR

### *First Semester*

	S.H.
Dendrology (F. 253) .....	3
Properties of Wood (F. 259) .....	3
Forest Soils (F. 261) .....	3
Economics of Forestry (F. 277) .....	3
Electives .....	3

### *Second Semester*

	S.H.
Harvesting and Processing Forest Products (F. 212) .....	4
Forest Pathology (F. 224) .....	3
Sampling Methods (F. 251) .....	3
Silvics (F. 264) .....	3
Electives .....	2

## SECOND YEAR

Two curricula in forestry are available after the common minimum requirements for both have been met. One is in general forestry; the other in forest products. The required work in each curriculum, in addition to that common to both, is:

## GENERAL FORESTRY CURRICULUM

*First Semester*

S.H.

Forest Entomology (F. 231) .....	3
Silviculture (F. 265) .....	3
Applied Silviculture (F. 267) .....	1
Forest Protection (F. 273) .....	2
Forest Management (F. 281) .....	3
Thesis research and electives .....	3

*Second Semester*

S.H.

Soils and Silviculture Spring Trip (F. 266) .....	1
Forest Valuation (F. 278) .....	3
Management Plans (F. 282) .....	2
Thesis research and electives .....	9

## FOREST PRODUCTS CURRICULUM

*First Semester*

S.H.

Seasoning and Preservation (F. 213) ..	3
Silviculture (F. 265) .....	3
Forest Management (F. 281) .....	3
Advanced Forest Utilization (F. 311) ..	3
Thesis research and electives .....	3

*Second Semester*

S.H.

Forest Products Entomology (F. 232) ..	3
Wood Anatomy (F. 260) .....	3
Industrial Engineering (Eng. 158) ....	3
Thesis research and electives .....	6

Each candidate is required to file in the office of the Dean of the School of Forestry on or before May 15 three copies of a thesis, type-written and bound in accordance with regulations set forth by the Faculty. The thesis shall be based upon an original study made in the field, laboratory, or library.

Work of equivalent grade done in residence at other institutions may, with the approval of the Faculty, be accepted as credit toward the M.F. degree. A minimum of one year's residence is required at Duke University. Students who have had satisfactory undergraduate training in forestry may, with the approval of the Faculty, elect to devote the major portion of their time to research under the supervision of one or more members of the Faculty and prepare a more comprehensive thesis than is required of students entering the School without previous work in forestry. Students in the School of Forestry may take in allied departments of the University as electives certain courses approved by the Faculty.



# Requirements for the Degree of Doctor of Forestry



THE degree Doctor of Forestry (D.F.) is a professional and research degree conferred on those students who have satisfactorily completed specified requirements of advanced study and research. Although course work is a necessary part of a student's program, the mere accumulation of course credits will not be sufficient for the attainment of this degree. The granting of the D.F. degree is based primarily upon the student's thorough knowledge of a specialized field of study and upon the production of an acceptable dissertation embodying the results of original research. The general requirements, which are presented in the following paragraphs, ordinarily will be rigidly adhered to, although deviations in exceptional cases may be made with the approval of the Faculty of the School of Forestry.

The D.F. degree is offered with majors (also minors) in the following branches of forestry: forest economics, forest entomology, forest management, forest mensuration, forest pathology, forest soils, forest-tree physiology, forest utilization, silvics, silviculture, and wood and forest products technology.

Prospective students should correspond with the Dean of the School of Forestry on all matters pertaining to admission to the School.

**ENTRANCE REQUIREMENTS:** A prospective student must have received the degree of Master of Forestry, or its equivalent, from a school of forestry of recognized standing. His scholastic average for his undergraduate work must be at least  $1\frac{1}{2}$  quality points, and that of his graduate studies two quality points per hour of credit.

An applicant must file a formal application for admission together with transcripts of his undergraduate and graduate academic records. In his application he should clearly state the branch of forestry in which he desires to concentrate, and if possible, the specific research.

The Committee on Admissions of the School of Forestry, together with the prospective student's major adviser, will determine if the qualifications of the applicant meet entrance requirements.

**RESIDENCE REQUIREMENTS:** The period of resident study beyond the M.F. degree or its equivalent is two years. Course work of equal grade taken at another college or university may, with Faculty approval, be accepted in partial fulfillment of the residence re-

quirement, but the last year of residence must be at Duke University. With the approval of the Faculty, one year of resident credit may be granted for work taken in the regular terms of the Summer Session of Duke University. Graduate work of a fragmentary nature taken over a period of several years will not meet the residence requirement.

**PROGRAM OF STUDY:** A committee consisting of five members of the Faculty will be appointed by the Dean to supervise the work of each student. This committee shall consist of a major adviser, a minor adviser and three other Faculty members. The major adviser will serve as Committee Chairman.

If the student's previous training is inadequate, he will be required to remedy such deficiencies as may be directed by his committee. The student, in consultation with his advisers, will prepare a program of study and research. The proposed program will be presented to the committee for consideration and acceptance, and then submitted to the Faculty of the School of Forestry for final approval. The minor requirement may be fulfilled by advanced course work or course work and research. Requirements for the minor will be established by the Faculty member in charge of the field. The minor may be taken in the School of Forestry, or in another department, school, or college in the University.

A grade point average of at least two quality points per credit hour is required of all work toward the doctorate.

**FOREIGN LANGUAGES:** A reading knowledge of two foreign languages is required. One of these shall be either French or German; the other will be selected by the committee with the view toward determining the student's needs. The foreign language examinations will be conducted by the appropriate language departments or, for certain languages, by a qualified member of the Faculty of Duke University.

**PRELIMINARY EXAMINATION:** At least six months before the student expects to receive the D.F. degree, and after he has completed the foreign language requirement and most of his formal course work, he will be required to take a comprehensive preliminary examination. The examination will be written in subjects specified, and may be followed by an oral examination given by the committee. The decision as to whether the examination has been passed or failed is the responsibility of the committee.

Should the student fail the preliminary examination he may apply for a second examination to be taken not earlier than six months after the first. Failure in the second examination renders the student ineligible to continue work for the D.F. degree at Duke University.

Upon satisfactory completion of the preliminary examination the student shall be considered a candidate for the D.F. degree.

**DISSERTATION:** In addition to obtaining adequate training in the field of his specialty, the student must demonstrate his ability to plan and conduct sound, original research. Evidence of this accomplishment must be presented in the form of an acceptable dissertation embodying the results of original work, which is a definite contribution to knowledge.

The subject of the dissertation must receive the approval of the Faculty, and the title filed with the Dean of the School of Forestry on or before October 15 of the academic year in which the candidate desires to take his final examination.

Four typewritten copies of the dissertation in approved form, must be deposited with the Dean of the School of Forestry on or before April 15 of the academic year in which the student expects to obtain the D.F. degree. The original and first carbon copy will be deposited in the University Library, the major adviser will receive one copy, and the fourth copy will be returned to the student.

The dissertation must be published either in its original form or in a modified form approved by the major adviser. In its published form the title page should include this statement: "A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Forestry in the School of Forestry of Duke University." In some instances an abstract, published in a recognized journal, will be considered as meeting the publication requirement.

The candidate must deposit a fee of \$50.00 with the Treasurer of the University on or before May 1 of the year the degree is to be conferred. If the dissertation is published in acceptable form within three years from the time the degree is granted, the deposit will be returned to the student upon receipt of 10 reprinted copies of the publication.

**FINAL EXAMINATION:** The final examination will be in defense of the candidate's dissertation and on related subject matter. It will be oral and will be conducted by the supervisory committee. At least six months must elapse between the dates of the preliminary and the final examinations.

# Forestry in the Graduate School



MAJOR and minor work is offered in the scientific aspects of forestry leading to the A.M. and Ph.D. degrees, which are administered by the Graduate School of Arts and Sciences. Work for these degrees may be pursued only in forest-tree physiology, wood anatomy and properties, forest pathology, silvics, forest soils, forest mensuration, forest entomology, and forest economics. Students who have had specialized training in botany or soil science and in allied basic subjects, such as physics, chemistry, geology, and zoology, may pursue graduate study and research only in the specialized fields for which their previous work has qualified them. Students who do not have previous training in forestry will be required to complete a minimum of thirty semester hours of approved work in forestry as a preliminary requirement to advanced study for the A.M. and Ph.D. degrees. Holders of these degrees will not be regarded as professionally trained foresters.

Applicants for admission to the Graduate School must ordinarily have made, in their undergraduate work, not less than a "B" average and must not have concentrated excessively in one field of study to the detriment of a rounded program. They should have met substantially the requirements for the A.B. or B.S. degree at Duke University.

In addition to fulfilling the usual requirements for admission, the applicant must satisfy the Director of Graduate Studies in Forestry as to his liberal arts training, as well as to his preliminary training in the field of forestry.

For detailed information concerning admission to the Graduate School, and for regulations governing candidacy for the A.M. and Ph.D. degrees, language requirements, residence requirements, and other regulations concerning these degrees, the student should consult the *Bulletin* of the Graduate School of Arts and Sciences.

# Courses and Subjects of Instruction



*With the exception of the Summer Session courses, odd-numbered courses are offered in the autumn semester, and even-numbered courses are offered in the spring semester.*

## IN THE SUMMER SESSION

C.E. S110. PLANE SURVEYING.—A special section of C.E. 61 intended for students in forestry and others of advanced standing. *Four weeks, eight hours a day, beginning June 10, 1953.* 4 s.h. Mr. BROWN

S150. FOREST SURVEYING.—Application of plane surveying to forest problems; practice in making boundary and topographic surveys of forested tracts, using both intensive and extensive methods. Work includes use of transit, level, traverse board, topographic abney and slope tape, and aneroid barometer. Prerequisites: Civil Engineering S110, plane surveying, or equivalent. *Five weeks, eight hours a day, beginning July 8, 1953.* 5 s.h. (w)

ASSOCIATE PROFESSOR CHAIKEN

S151. FOREST MENSURATION.—Field studies in methods of measuring content and growth of trees and forest stands; practice in timber estimating, log scaling, use of mensurational instruments, and collection of basic data. *Four weeks, eight hours a day, beginning August 12, 1953.* 4 s.h. (w) PROFESSOR SCHUMACHER

S261. FOREST SOILS.—Origin, development, and classification of soils with special emphasis on those developed in humid climates; morphological, physical, and chemical properties of soils in relation to growth of trees and the composition of forest stands; effect of forests on soils. Prerequisites: Chemistry 1 and 2, and Physics I or equivalents; physical geology, mineralogy, petrology and analytical chemistry are also desirable. (This course will be given only if ten or more students enroll for it.) (Two weeks, eight hours a day.) *June 23-July 6, 1953.* 10.01. 2 s.h. PROFESSOR COILE

## FOR SENIORS AND GRADUATES

212. HARVESTING AND PROCESSING FOREST PRODUCTS.—Methods of harvesting and processing products obtained from forests, with emphasis on application of methods to managed forests in important forest regions of North America and a consideration of costs. A two-week field trip in the Southeast is required for visits to typical harvesting operations and manufacturing plants. 4 s.h. (w) PROFESSOR WACKERMAN

213. SEASONING AND PRESERVATION OF WOOD.—Principles of seasoning lumber and other forest products by air drying and kiln drying, types of kilns and their operation; principles, methods, and materials used in treating wood to increase its durability. 3 s.h. (w) PROFESSOR WACKERMAN

214. MARKETING FOREST PRODUCTS.—Methods of selling and distributing timber, lumber, and other forest products in domestic and foreign trade; transportation methods; promotional activities of trade associations; competition between producing regions for markets and problems arising from the development of wood substitutes. Prerequisites: Forestry 212 or equivalent. 3 s.h. (w) PROFESSOR WACKERMAN

224. FOREST PATHOLOGY.—Special reference to diseases of forest trees. Prerequisites: Botany 1 and 2, and Forestry 253, or equivalents. 3 or 4 s.h. (w) PROFESSOR WOLF



231. FOREST ENTOMOLOGY.—Morphology, general classification, life histories and control of insects injurious to forest trees, logs, and lumber. 3 s.h. (w)

ASSOCIATE PROFESSOR ANDERSON

232. FOREST PRODUCTS ENTOMOLOGY.—Special reference to insects infesting forest products; recognition, character of damage, and control of species causing injury to manufactured wood products. 3 s.h. (w)

ASSOCIATE PROFESSOR ANDERSON

236. FOREST GAME MANAGEMENT.—Characteristics and life histories of forest animals; interrelationship between animals and forests; management of forest animals for revenue; control of noxious species. 3 s.h. (w)

ASSOCIATE PROFESSOR ANDERSON

251. SAMPLING METHODS IN FORESTRY.—Statistical background for solution of sampling problems with special reference to sample inventory of a forest property. Offered both semesters. Prerequisite: Forestry S151. 3 s.h. (w)

PROFESSOR SCHUMACHER

252. FOREST MENSURATION.—Empirical equations and curve fitting appropriate for construction of timber yield tables, tree volume and taper tables; significance tests and graphical solution of equations. Assignments require operation of calculating machines. Prerequisite: Forestry 251. 3 s.h. (w)

PROFESSOR SCHUMACHER

253. DENDROLOGY.—Nomenclature, classification, and identification of woody plants with special reference to species indigenous to southeastern United States and other important forest regions of temperate North America. Laboratory and field work. Prerequisite: one year of botany. 3 s.h. (w)

PROFESSOR HARRAR

255. BONDING OF WOOD.—Preparation of veneers and lumber for bonding; types and characteristics of modern adhesives used in the manufacture of plywood and laminates; cold and hot pressing procedures; use of electronic heating; bag molding techniques; manufacture and properties of transmuted wood; inspection and testing procedures. Prerequisite: Forestry 260 or equivalent. 3 s.h. (w)

PROFESSOR HARRAR

257. DESIGN OF FORESTRY EXPERIMENTS AND ANALYSIS OF DATA.—Role of experimental design in field and laboratory, and statistical analysis of data as aspects of scientific methods in forest research. 5 s.h. (w)

PROFESSOR SCHUMACHER

259. PROPERTIES OF WOOD.—The chemical nature of wood substance and its industrial chemical derivatives. Wood-moisture relationships; pertinent non-mechanical physical properties; mechanical properties and factors affecting the strength of wood; standard timber testing procedures. Uses of woods as determined by their properties. Prerequisites: one year of college chemistry; one course in college physics. 3 s.h. (w)

PROFESSOR HARRAR

260. WOOD ANATOMY.—Study of the physical features and the gross and minute structural characteristics of wood leading to the identification of the commercial woods of the United States, and the important tropical woods used in American wood-working industries. Elementary microtechnique. Prerequisite: One year of botany. 3 s.h. (w)

PROFESSOR HARRAR

261. FOREST SOILS.—Origin, development, and classification of soils with special emphasis on those developed in humid climates; morphological, physical, and chemical properties of soils in relation to growth of trees; effect of forests on soils. Prerequisites: Chemistry 1 and 2, and Physics 1, or equivalent; physical geology, mineralogy, petrology, and analytical chemistry are also desirable. 3 s.h. (w)

PROFESSOR COILE

264. **SILVICS.**—Ecological foundations of silviculture with special reference to forest site factors; influence of forests on their environment; growth and development of trees and stands; origin, development, and classification of forest communities; methods of studying forest environments. Desirable prerequisites: plant physiology, plant ecology, and Forestry 253 and 261, or equivalents. 3 s.h. (w)

PROFESSOR KORSTIAN

265. **THEORY AND PRACTICE OF SILVICULTURE.**—Principles governing natural regeneration and treatment of forest stands and their application; reproduction methods, intermediate cuttings, and cultural operations. Field practice includes marking for various kinds of cuttings, cultural treatments, and study of managed stands in the Duke Forest. Prerequisite: Forestry 264 or equivalent. 3 s.h. (w)

PROFESSOR KORSTIAN

266. **SOILS AND SILVICULTURE SPRING TRIP.**—Approximately one week at spring camp studying soils and silviculture in the coastal plain. Prerequisite: Forestry 261, 265 or equivalent. 1 s.h.

PROFESSOR COILE

267. **APPLIED SILVICULTURE.**—Application and comparison of silvicultural practices to principal commercial forest species, types and regions of temperate North America, with particular emphasis on the South. Field work will include preparation of silvicultural plans. Prerequisite: Forestry 265 or equivalent. 1 s.h. (w)

PROFESSOR KORSTIAN

268. **FOREST SEEDING AND PLANTING.**—Place of artificial regeneration in practice of forestry; reforestation surveys and plans; collection, extraction, cleaning, testing and storage of forest tree seeds; direct seeding; nursery practice; forest planting. 2 s.h. (w)

PROFESSOR KORSTIAN

273. **FOREST PROTECTION.**—Principles of forest protection; causes, character and effects of forest fires; principles of forest fire prevention, presuppression and suppression; fire control costs and fire plans; protection against domestic animals, wildlife, and atmospheric agencies. 2 s.h. (w)

ASSOCIATE PROFESSOR CHAIKEN

275. **FORESTRY POLICY.**—Objective study and analysis of the development of public land and forestry policies in the United States, present policies of public and private forestry organizations, and current policy issues in the light of economic and other criteria. 2 s.h. (w)

ASSISTANT PROFESSOR STOLTENBERG

277. **ECONOMICS OF FORESTRY.**—Principles of economics used in the analysis of factors affecting the supply of forest products, pricing of stumpage and primary forest products, factors affecting the demand for forest products, economic characteristics and problems of the major forest products industries; analysis of such specific private forestry problems as marketing, forest ownership pattern, taxation, credit, risk, and economic fluctuations. Prerequisite: at least one course in the principles of economics. 3 s.h. (w)

ASSISTANT PROFESSOR STOLTENBERG

278. **FOREST VALUATION.**—Principles of economics applied to the appraisal of land values and management alternatives; theory and application of interest and the discount process; marginal analysis applied to the specific problems of firms engaged in forestry. Prerequisite: Forestry 277 or consent of the instructor. 3 s.h. (w)

ASSISTANT PROFESSOR STOLTENBERG

281. **FOREST MANAGEMENT.**—Principles of organizing forest properties for systematic management; use of data obtained in surveys and inventories; principles of forest regulation, including a study of normal and actual forests, rotations, cutting cycles, and methods of regulating the cut in even-aged and all-aged forests for sustained yield; introduction to the preparation of preliminary forest management plans. Prerequisite: Forestry S150, S151, or equivalent. 3 s.h. (w)

ASSOCIATE PROFESSOR CHAIKEN

282. **MANAGEMENT PLANS.**—The preparation of a preliminary forest management plan. Relocation of property boundaries; forest surveys and inventories; subdivision of forest properties for management purposes; determination of the increment and regulation of the cut; selection of applicable methods of silvicultural treatment; provisions for the protection, operation, and general administration of

forest properties; forest records. One week is spent in field work in the South Atlantic Coastal Plain. Prerequisites: Forestry 265 and 281 or equivalents. 2 s.h. (w)  
ASSOCIATE PROFESSOR CHAIKEN

212A. TO 282A. SPECIAL STUDIES IN FORESTRY.—Work on the same level as the foregoing Senior-Graduate courses to meet the needs of individual students. Credits and hours to be arranged.  
THE STAFF

### FOR GRADUATES

301-302. ADVANCED STUDIES IN FORESTRY.—Credits to be arranged. To meet individual needs of graduate students in the following branches of forestry:

A. SILVICS.—Prerequisites: Forestry 253, 261, and 264 or equivalents.

PROFESSOR KORSTIAN

B. FOREST SOILS.—Prerequisite: Forestry 261 or equivalent.

PROFESSOR COILE

C. SILVICULTURE.—Prerequisites: Forestry 265, 266 and 267 or equivalents.

PROFESSOR KORSTIAN

D. FOREST MANAGEMENT.—Prerequisite: Forestry 281 or equivalent.

ASSOCIATE PROFESSOR CHAIKEN

E. FOREST ECONOMICS.—Prerequisite: Forestry 277 or equivalent.

ASSISTANT PROFESSOR STOLTENBERG

F. PROPERTIES OF WOOD.—Prerequisites: Forestry 259 and 260, or equivalents.

PROFESSOR HARRAR

G. FOREST MENSURATION.—Prerequisite: Forestry 252, or equivalent.

PROFESSOR SCHUMACHER

H. FOREST ENTOMOLOGY.—Prerequisites: Forestry 231, 232 or equivalent.

ASSOCIATE PROFESSOR ANDERSON

I. FOREST UTILIZATION.—Prerequisite: Forestry 212 or equivalent.

PROFESSOR WACKERMAN

J. DENDROLOGY.—Prerequisite: Forestry 253 or equivalent.

PROFESSOR HARRAR

311. ADVANCED FOREST UTILIZATION.—Analysis of the principles of determining the cost of and return from harvesting and manufacturing timber for various products and other uses of forests; study of factors governing the relation of tree size to net stumpage values; and the application of these principles and methods in the solution of actual case problems. Prerequisite: Forestry 212 or equivalent. 3 s.h. (w)  
PROFESSOR WACKERMAN

320. SEMINAR IN SILVICULTURE.—Arranged primarily to give graduates of other schools of forestry special training in the silviculture of the forests of the South. All men taking this course should also register for Forestry 266. Prerequisite: At least one course in silviculture. 3 s.h. (w)  
PROFESSOR KORSTIAN

322. SOIL CLASSIFICATION AND MAPPING.—Classification of soils as natural bodies. Mapping of soils, land use classes and forest site classes. Ordinarily one week of field study will be made of soils in either the coastal plain or mountains. Prerequisite: Forestry 261. 2 s.h. (w)  
PROFESSOR COILE

323-324. ADVANCED FOREST PATHOLOGY.—Advanced study and research on life histories and control of diseases of forest trees to meet individual needs of graduate students. Prerequisites: plant physiology and forest pathology. Credits to be arranged.  
PROFESSOR WOLF

326. ADVANCED FOREST SOILS.—Interrelations of the physical, chemical, and biological characteristics of forest and range soils. Prerequisites: analytical chemistry and Forestry 261. 3 s.h. (w)  
PROFESSOR COILE

351-352. ADVANCED PHYSIOLOGY OF FOREST TREES.—Advanced study and research on problems in physiology of forest trees to meet individual needs of

graduate students. Prerequisites: plant physiology and plant ecology and silvics. Credits to be arranged. PROFESSOR KRAMER

356. ADVANCED FOREST ECONOMICS.—Examination and discussion of the application of economic concepts in forestry, the potential contribution of economic analysis to private and public forest management; current research in forest economics. Prerequisites: Forestry 277 and 278 or consent of the instructor; advanced courses in economics and economic theory are desirable. 2 s.h. (w)

ASSISTANT PROFESSOR STOLTENBERG

357-358. RESEARCH IN FORESTRY.—Credits to be arranged. Students who have had adequate training may do research under direction of members of the Faculty in the branches of forestry indicated under courses 301-302 with the same prerequisites as thereunder noted. Each branch to bear the same letter designation as under Courses 301-302.

# Enrollment 1952-1953



- \*Arnette, Talmadge Edison (B.S.F., University of Georgia); Brunswick, Ga.
- \*\*Aulbach, John Joseph (B.S.F., University of Michigan; M.F., University of Michigan), Blacksburg, Va.
- \*Ball, George Harold (B.S.F., University of Toronto), Toronto, Canada.
- \*\*Bilan, Mykyta Victor (University of Lemberg; Diploma in Forestry, University of Munich), Durham, N. C.
- \*Buckner, Edward Reap (B.S., University of North Carolina), Chapel Hill, N. C.
- \*\*\*Carvell, Kenneth Llewellyn (B.A., Harvard University; M.F., Yale University), North Andover, Mass.
- \*\*Connolly, Francis Thomas (B.S., Rutgers University), Plainfield, N. J.
- \*\*Crockett, Joseph McGavock (B.S., Virginia Polytechnic Institute), Wytheville, Va.
- \*\*Davis, Francis Guy (B.S., Virginia Polytechnic Institute), Richmond, Va.
- \*\*\*DeLong, Thomas Stover (B.S., Duke University; M.F., Duke University), Sinking Spring, Pa.
- \*\*\*Goggans, James Floyd (B.S.F., University of Georgia; M.F., Duke University), Auburn, Ala.
- \*\*\*Griffin, Ralph Hawkins (B.S., Virginia Polytechnic Institute; M.F., Yale University), Roanoke, Va.
- \*\*Gross, Don Frederick (B.S., Roanoke College), Vinton, Va.
- \*Hatchell, Glyndon Elbert (B.S.F., Louisiana State University), Denham Springs, La.
- \*\*\*Hocker, Harold Willetts, Jr. (B.S., Pennsylvania State College; M.F., North Carolina State College), Harrisburg, Pa.
- \*\*McMahon, William Joseph, Jr. (B.S., Virginia Polytechnic Institute), Newport News, Va.
- \*Markley, Jack Hutcheson (B.S., Virginia Polytechnic Institute), Staunton, Va.
- \*\*\*Stecher, Donald Adolph (B.S., University of New Hampshire; M.F., North Carolina State College), Centre Harbor, N. H.
- \*\*Stillwell, Harold Daniel (B.S., Duke University), Durham, N. C.
- \*\*\*Sullivan, Edward Thomas (B.S.F., North Carolina State College; M.F., Duke University), Manhassett, L. I., N. Y.
- \*\*Turner, Ralph Gray (B.S., University of Richmond), Richmond, Va.
- \*\*Zimmerman, James Dillard (A.B., Lynchburg College), Boydton, Va.

## *Students in Summer Session Only, 1952*

- Bethlahmy, Nedavia (B.S., Pennsylvania State College; M.F., Yale University), Bethlehem, Pa.
- \*Bonnallie, Chester Alexander, Jr. (B.S., University of Massachusetts), Fitchburg, Mass.
- Gash, William D. (B.S., North Carolina State College), Burgaw, N. C.
- \*\*\*Herndon, Thomas Glenn (B.S.F., University of Florida; M.S.F., University of Florida), Gainesville, Fla.
- Miller, Ralph R. (B.S., Iowa State College), Bogalousa, La.
- (Osborn, Robert M. (B.S., Pennsylvania State College), Franklin, Va.
- Robertson, F. Herbert (B.S.F., University of Georgia), Panama City, Fla.
- \*\*\*Smith, David V. (B.S.F., University of Georgia; M.F., Duke University), Lumpkin, Ga.
- Trimble, George R. (B.S., University of Maine), Parsons, West Va.
- Troxell, Harry Emerson, Jr. (B.S., Duke University; M.F., Duke University), Fort Collins, Colo.

## *Special Student*

- Nour, Hussein (B.S., Fouad First University), Cairo, Egypt.

## *Students of Forestry in the Graduate School of Arts and Sciences*

- Carmean, Willard Handy (B.S., Pennsylvania State College; M.F., Duke University), Norristown, Pa.
- McClurkin, Douglas Charles (B.S.F., University of Georgia; M.F., Duke University), Jacksonville, Fla.
- Zahner, Robert (B.S., Duke University; M.F., Duke University), Durham, N. C.
- \*Registered for Master of Forestry Degree, 1953.
- \*\*Registered for Master of Forestry Degree, 1954.
- \*\*\*Registered for Doctor of Forestry Degree.



## *Academic-Forestry Senior in the School of Forestry*

Martin, Charles Edward, Oxford, Pa.

### *Institutions Represented*

Duke University .....	9	University of Lemberg .....	1
Foud First University .....	1	University of Maine .....	1
Harvard University .....	1	University of Massachusetts .....	1
Iowa State College .....	1	University of Michigan .....	1
Louisiana State University .....	1	University of Munich .....	1
Lynchburg College .....	1	University of New Hampshire .....	1
North Carolina State College .....	4	University of North Carolina .....	1
Pennsylvania State College .....	4	University of Richmond .....	1
Roanoke College .....	1	University of Toronto .....	1
Rutgers University .....	1	Virginia Polytechnic Institute .....	5
University of Florida .....	1	Yale University .....	3
University of Georgia .....	5	<i>Total Institutions</i> .....	23

### *Geographical Distribution*

#### UNITED STATES

Alabama .....	1	New Jersey .....	1
Colorado .....	1	New York .....	1
Florida .....	3	North Carolina .....	5
Georgia .....	2	Pennsylvania .....	5
Louisiana .....	2	Virginia .....	10
Massachusetts .....	2	West Virginia .....	1
New Hampshire .....	1	<i>Total States</i> .....	13

#### FOREIGN COUNTRIES

Canada .....	1	<i>Total</i> .....	2
Egypt .....	1		

### *General Summary*

Students in the School of Forestry.....	22
Students in Summer Session Only.....	10
Special Student .....	1
Students of Forestry in the Graduate School of Arts and Sciences.....	3
Academic-Forestry Senior in the School of Forestry.....	1
<i>Total Enrollment</i> .....	37
Total number of institutions represented.....	23
Total number of states represented.....	13
Total number of foreign countries represented.....	2





**BULLETIN**  
**OF**  
**DUKE UNIVERSITY**



**The School of Nursing**  
**The Division of Nursing Education**

**ANNOUNCEMENTS FOR 1953-1954**

# Annual Bulletins

FOR GENERAL BULLETIN of Duke University, apply to *The Secretary*, Duke University, Durham, N. C.

FOR BULLETIN OF UNDERGRADUATE INSTRUCTION, apply to *The Secretary*, Duke University, Durham, N. C.

FOR BULLETIN OF THE COLLEGE OF ENGINEERING, apply to *The Secretary*, Duke University, Durham, N. C.

FOR BULLETIN OF THE GRADUATE SCHOOL OF ARTS AND SCIENCES, apply to *The Dean of the Graduate School*, Duke University, Durham, N. C.

FOR BULLETIN OF THE SCHOOL OF FORESTRY, apply to *The Dean of the School of Forestry*, Duke University, Durham, N. C.

FOR BULLETIN OF THE SCHOOL OF LAW, apply to *The Dean of the School of Law*, Duke University, Durham, N. C.

FOR BULLETIN OF THE SCHOOL OF MEDICINE, apply to *The Dean of the School of Medicine*, Duke University, Durham, N. C.

FOR BULLETIN OF THE SCHOOL OF NURSING, apply to *The Dean of the School of Nursing*, Duke University, Durham, N. C.

FOR BULLETIN OF THE DIVINITY SCHOOL, apply to *The Dean of the Divinity School*, Duke University, Durham, N. C.

FOR BULLETIN OF THE SUMMER SESSION, apply to *The Director of the Summer Session*, Duke University, Durham, N. C.

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BULLETIN  
OF  
DUKE UNIVERSITY  
THE SCHOOL OF NURSING



1953-1954

DURHAM, NORTH CAROLINA  
1953

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# Calendar of the Colleges



## *Summer Session*

1953

- June 10 Wednesday—Registration for First Term.  
June 11 Thursday—Instruction begins for Summer Session, First Term.  
July 17-18 Friday-Saturday—Final examination for the First Term.  
July 21 Tuesday—Registration for the Second Term.  
July 22 Wednesday—Instruction begins in all Second Term courses.  
July 25 Saturday—All classes meet. Not a holiday.  
Aug. 27-28 Thursday-Friday—Final examinations in all 6-week courses of the Second Term.

## *Academic Year 1953-54*

- Sept. 10 Thursday, 9:00 A.M.—Hanes House open to freshmen.  
Sept. 11 Friday—Registration orientation, School of Nursing.  
Sept. 15 Tuesday—Registration and matriculation of new students in Nursing Education.  
Sept. 17 Thursday—Instruction begins, fall semester.  
Nov. 9 Monday—Last day for reporting mid-semester grades.  
Nov. 26 Thursday—Thanksgiving Day: a holiday.  
Dec. 11 Friday—Founders' Day.  
Dec. 19 Saturday, 12:30 P.M.—Christmas recess begins (campus classes and first year students).

1954

- Jan. 4 Monday, 8:00 A.M.—Instruction is resumed.  
Jan. 18 Monday—Mid-year examinations begin.  
Jan. 29 Friday—Mid-year examinations end.  
Jan. 30 Saturday—Registration and matriculation of new graduate nurse students.  
Feb. 1 Monday—Last day for matriculation for the spring semester.  
Feb. 2 Tuesday—Instruction begins, spring semester.  
March 17 Wednesday—Last day for reporting mid-semester grades.  
March 27 Saturday, 12:30 P.M.—Spring recess begins (campus classes and first year students).  
April 5 Monday, 8:00 A.M.—Instruction is resumed.  
May 24 Monday—Final examinations begin.  
June 3 Thursday—Final examinations end.  
June 5 Saturday—Commencement begins.  
June 6 Sunday—Commencement Sermon.  
June 7 Monday—Graduating Exercises.

# Officers of Administration



## *General Administration*

EDENS, ARTHUR HOLLIS, B.Ph., A.M., M.P.A., Ph.D., LL.D. <i>President of the University</i>	West Campus
WANNAMAKER, WILLIAM HANE, A.B., A.M., Litt.D. <i>Vice-Chancellor of the University</i>	West Campus
GROSS, PAUL MAGNUS, B.S., A.M., Ph.D. <i>Vice-President in the Educational Division and Dean of the University</i>	Hope Valley
JORDAN, CHARLES EDWARD, A.B., LL.D. <i>Vice-President in the Division of Public Relations and Secretary of the University</i>	813 Vickers Avenue
HERRING, HERBERT JAMES, A.B., A.M., LL.D. <i>Vice-President in the Division of Student Life and Dean of Trinity College</i>	Myrtle Drive
BROWER, ALFRED SMITH, A.B. <i>Business Manager and Comptroller</i>	1550 Hermitage Court
MARKHAM, CHARLES BLACKWELL, A.B., A.M. <i>Treasurer of the University</i>	204 Dillard Street

## *School of Nursing*

WILSON, FLORENCE K., A.B., R.N., M.A. <i>Dean of the School of Nursing</i>	Faculty Apartments
JOHNSTON, DOROTHY F., R.N., B.S., C.P.H.N., M.Ed. <i>Assistant Professor of Nursing Education</i>	2020 Wa Wa Avenue
CLARK, LELIA, R.N., B.S., M.A. <i>Professor of Nursing Service</i>	Hanes House
MASSEY, LUCY E., R.N., B.S., M.A. <i>Assistant Professor of Public Health Nursing</i>	Chapel Hill, N. C.

## *Division of Nursing Education*

### DEPARTMENT OF EDUCATION

BRINKLEY, ROBERTA FLORENCE, A.B., M.A., Ph.D. <i>Dean of Woman's College</i>	East Campus
JENKINS, MARIANNA, A.B., A.M., Ph.D. <i>Associate Dean of Undergraduate Instruction, Woman's College</i>	1626 Minerva Avenue
PERSONS, MRS. ELIZABETH ANDERSON, A.B., A.M. <i>Director of Admissions, Woman's College</i>	612 Swift Avenue
CARTWRIGHT, WILLIAM H., B.S., A.M., Ph.D. <i>Chairman, Department of Education</i>	942 Lambeth Circle
INGLES, THELMA, R.N., B.A., M.A. <i>Director, Division of Nursing Education</i>	Poplar Apartments

RAPPAPORT, JOSEPHINE, R.N., B.S., M.A.

*Assistant Professor of Nursing Education*

Faculty Apartments

ZUKOWSKI, HALINA A., R.N., B.S., M.L.

*Assistant Professor of Nursing Education and Director of  
the Program in Advanced Psychiatric Nursing*

Popular Apartments

## *Committee on Health Affairs*

W. C. DAVISON, *Professor of Pediatrics, and Dean of the School of Medicine.*

FLORENCE K. WILSON, *Professor of Nursing Education, and Dean of the School of Nursing.*

ROSS PORTER,\* *Professor of Hospital Administration, and Superintendent of Duke Hospital.*

J. MINEFREE PYNE, *Associate in Hospital Administration.*

LOUIS E. SWANSON, *Associate in Hospital Administration.*

LELIA R. CLARK, *Professor of Nursing Service.*

DOROTHY JOHNSTON, *Assistant in Charge of Nursing Education*

BAYARD CARTER, *Professor of Obstetrics and Gynecology.*

W. D. FORBUS, *Professor of Pathology.*

F. G. HALL, *Professor of Physiology.*

PHILIP HANDLER, *Professor of Biochemistry.*

DERYL HART, *Professor of Surgery.*

L. B. HOHMAN, *Professor of Psychiatry.*

HANS LOWENBACH, *Associate Professor of Psychiatry.*

J. E. MARKEE, *Professor of Anatomy.*

K. E. PENROD, *Associate Professor of Physiology and Pharmacology and Assistant Dean.*

R. J. REEVES, *Professor of Radiology.*

D. T. SMITH, *Professor of Bacteriology.*

E. A. STEAD, JR., *Professor of Medicine.*

Four other members of the faculty holding the rank of Assistant Professor or above, by alphabetical rotation.

## *Committees of the School of Nursing*

*Admissions:* F. Wilson, Chairman, G. Elliott, S. Horne, D. Johnston, L. Massey, M. Schumacher, H. Zukowski.

*Curriculum:* L. Massey, Chairman, L. Clark, R. Conrad, R. Hahola, T. Ingles, D. Johnston, E. Kiernan, J. Rappaport, F. Wilson, J. Wilson.

*Evaluation:* L. White, Chairman, H. Brock, M. Campbell, R. Conrad, B. Garmon, R. Hahola, S. Horne, T. Ingles, D. Johnston, E. Kiernan, L. Mason, L. Massey, M. Mitchell, M. Scholfield, M. Schumacher, J. Suitt, F. Wilson, J. Wilson, H. Zukowski.

*Library:* L. Knowles, Chairman, W. Butler, M. Campbell, B. Garmon, S. Horne, T. Howell, M. A. Kelly, M. Leonard, M. McNary.

*Procedure:* M. Leonard, Chairman, H. Brock, L. Clark, R. Conrad, V. Hultin, S. Jeffreys, D. Nifong, M. Sherwood, J. Wilson.

\* On leave of absence.



# Instructional Staff



## *School of Nursing*

FLORENCE K. WILSON, B.A., M.A., R.N.

*Professor of Nursing Education*

University of Michigan, B.A., 1913; Vassar Training Camp for Nurses, 1918; Diploma, City Hospital School of Nursing, 1920; Western Reserve University, M.A., 1930; Associate Professor of Nursing Education, Syracuse University, 1943-45; Director of School of Nursing, Syracuse Memorial Hospital, 1937-45; Instructor and Supervisor of Medical Nursing, New York Hospital, 1934-37; Instructor and Supervisor, Western Reserve University School of Nursing, 1923-29; Research Assistant, Committee on Grading of Schools of Nursing, 1929-30; Professor of Nursing Education, 1947; *Dean of School of Nursing, 1946—.*

DOROTHY F. JOHNSTON, R.N., B.S., C.P.H.N., M.Ed.

*Assistant Professor of Nursing Education*

Diploma, Kalamazoo State Hospital School of Nursing, 1923; Operating Room Supervisor, Allegan, Michigan, Feb.-Oct., 1922; Private Duty, Kalamazoo, Michigan, Oct., 1922-Jan., 1923; Public Health Nursing, Kalamazoo, Michigan, Jan., 1923-Sept., 1925; School Nursing, Cadillac, Michigan, Sept., 1925-Sept., 1929; Public Health Nursing, St. Clair, Michigan, Sept., 1929-Sept., 1937; B.S., University of Michigan, 1939; Public Health Nursing, Niantic, Connecticut, Jan., 1940-Oct., 1941; (Lt. (jg) U. S. Public Health Service, Washington, D. C., Oct., 1941-Feb., 1949; Assistant Professor of Nursing Education, University of Georgia, Feb., 1949-July, 1951; Director of Nursing Education, Grady Hospital, Atlanta, Georgia, Sept., 1951-Jan., 1952; *Assistant Professor of Nursing Education, Duke University School of Nursing, 1952—.*

LELIA R. CLARK, R.N., B.S., M.A.

*Professor of Nursing Service*

Diploma, Mount Sinai Hospital School of Nursing, Philadelphia, Pa., 1932; Head Nurse, Mount Sinai Hospital, 1932-34; Night Obstetrical Supervisor, Mount Sinai Hospital, 1934-36; Night Supervisor, Mount Sinai Hospital, 1936-38; Certificate, Obstetrical Nursing, New York Hospital, New York, N. Y., 1939; Director of Nursing, Memorial General Hospital, Kinston, N. C., 1940-42; Army Nurse Corps, USA and ETO, 1942-45; Director of Nursing, Pitt General Hospital, Greenville, N. C., 1946-47; B.S. Degree, Columbia University, New York, N. Y., 1948; M.A., Columbia University, New York, N. Y., 1949; *Assistant Professor of Nursing Education, Duke Hospital, 1949—.*

LUCY E. MASSEY, R.N., B.A., M.A.

*Assistant Professor of Public Health Nursing*

B.A., Randolph-Macon Woman's College, 1918; Diploma, Mount Sinai Hospital School of Nursing, N. Y., 1921; M.A., Teachers College, Columbia University, 1941; Public Health Nurse, Edgecombe Co., N. C., 1921-23; Asst Editor, "Hospital Social Service," 1923-24; Field Nurse, Kentucky State Board of Health, 1925-28; Supervising Nurse, Rockefeller Foundation Training Station, Indianola, Miss., 1928-30; Professor of Public Health Nursing, Richmond School of Social Work and Public Health, 1931-32; Asst State Supervising Nurse, Tennessee State Health Dept., 1934-35; Asst and Assoc. Professor of Public Health Nursing, Western Reserve University, 1935-39; Director, Eastern Area Nursing Service, American National Red Cross, 1939-42; Nurse Member, School of Health Service Coordinating Unit, Mississippi State Board of Health and State Dept. of Education, 1942-46; Director, Division of Public Health Nursing, Mississippi State Board of Health, 1946-49; *Assistant Professor of Public Health Nursing, Duke University School of Nursing, 1949—.*

HELEN E. BROCK, B.E., B.S., R.N.

*Instructor in Nursing Arts*

B.E., Genesee State Teachers College, Genesee, N. Y., 1942; B.S., Cornell University, 1947; Diploma, Cornell University-New York Hospital School of Nursing, 1947; Clinical Instructor in Surgery, V.A. Hospital, Oteen, N. C., 1947-48; Clinical Nurse, Norburn Clinic, Asheville, N. C., 1948-49; Assistant in Nursing Arts, 1949-51; *Instructor in Nursing Arts, Duke University School of Nursing, 1952—.*

## WINIFRED T. BUTLER, R.N.

*Assistant Instructor in Nursing Arts*

Diploma, Duke University School of Nursing, 1950; Pediatric Staff Nurse, 1950-February, 1952; *Assistant Instructor in Nursing Arts, Duke University School of Nursing, Feb., 1952—.*

## MARY M. CAMPBELL, R.N., B.S.N.E.

*Instructor in Operating Room Technique*

Diploma, Charlotte Memorial Hospital, Charlotte, N. C., 1947; B.S. in Nursing Education, Duke University, 1952; General Staff Duty, Operating Room, Charlotte Memorial Hospital, 1947-48; General Staff Duty, Operating Room, Catawba Hospital, Newton, N. C., 1950; Woman's College of U. N. C. and Staff Nursing in Infirmary of Woman's College of U. N. C., 1950-51; General Staff Duty, Operating Room, Charlotte Memorial Hospital, 1951; *Instructor in Operating Room Technique, Duke University School of Nursing, 1952—.*

## REBEKAH F. CONRAD, B.A., M.N., R.N.

*Instructor in Medical Nursing*

B.A., Lenoir Rhyne College, Hickory, N. C., 1946; Diploma and M.N., Yale University School of Nursing, New Haven, Connecticut, 1949; Instructor in Nursing Arts and Medical Nursing, Rowan Memorial Hospital, Salisbury, N. C., 1949-51; Private Duty Nursing, 6 months; *Instructor in Medical Nursing, Duke University School of Nursing, 1952—.*

## BETTY L. GARMON, R.N., B.S.N.E.

*Instructor in Surgical Nursing*

Diploma, Charlotte Memorial Hospital, Charlotte, N. C., 1947; B.S. Nursing Education, Duke University, 1952; Staff Nurse, 1947-49; Head Nurse, Charlotte Memorial Hospital, 1949-50; *Instructor in Surgical Nursing, Duke University School of Nursing, 1952—.*

## ROSE HAHOLA, R.N.

*Instructor in Pediatric Nursing*

Diploma, The Somerset Hospital, Somerville, N. J., September, 1949; Skidmore College, Post Graduate Hospital, Head Nurse Trainee on Pediatric Ward, September, 1950-1951; Staff and Assistant Head Nurse, The Somerset Hospital, Pediatrics, September, 1949-1950; *Instructor in Pediatric Nursing, Duke University School of Nursing, 1952—.*

## SARA P. HORNE, R.N., B.S.N.E.

*Counselor and Instructor in Anatomy and Physiology*

Woman's College, University of North Carolina, Greensboro, N. C., 1943-45; Diploma in Nursing, Duke University School of Nursing, 1948; B.S. in Nursing, Duke University, 1948; B.S.N.E., 1952; General Duty in Pediatrics, James Walker Memorial Hospital, Wilmington, N. C., 1948-49; Night Nurse, Emergency Room, September, 1949-May, 1950; Assistant Supervisor, Night Nursing Service, May, 1950-51; Instructor, Practical Nurse School, Duke Hospital, Jan., 1951-Sept., 1951; *Counselor and Instructor in Anatomy and Physiology, Duke University School of Nursing, 1952—.*

## EILEEN D. KIERNAN, R.N., B.S.

*Instructor in Nursing of Prematures*

Diploma in Nursing, Cornell University, New York Hospital School of Nursing, New York, N. Y., 1944; B.S. in Nursing Education, Teachers College, Columbia University, 1950; Assistant Head Nurse, Pediatrics, The New York Hospital, 1944-46; Head Nurse, Pediatrics, The New York Hospital, 1946-48; Assistant in Pediatrics; Supervisor, Pediatric Nursing Service, Cornell University, New York Hospital School of Nursing; *Instructor in Nursing of Prematures, Duke University School of Nursing, 1951—.*

## LOIS N. KNOWLES, R.N., B.S.N.

*Assistant Instructor in Nursing Arts*

Diploma, Duke University School of Nursing, 1945; B.S. in Nursing, Duke University, 1945; General Duty, University of Florida Infirmary, Gainesville, Florida, 1945-46; Clinical Instructor, 1946-47 and Science Instructor, 1947-50, Alachua General Hospital School of Nursing, Gainesville, Florida; Head Nurse, Private Surgical Ward, 1950-52; *Assistant in Nursing Arts, Duke University School of Nursing, 1952—.*

## LOIS G. WHITE, R.N.

*Assistant Instructor in Operating Technique*

Diploma, Coshocton City Hospital, Coshocton, Ohio, 1945; Assistant Supervisor, Operating Room, Coshocton City Hospital, 1945-46; Industrial Nurse, Hoover Co., N. Canton,

Ohio, 1946-49; Staff Nurse, Emergency Room, Mercy Hospital, Canton, Ohio, 1950; Staff Nurse, Operating Room, Duke Hospital, 1951; *Assistant Instructor in Operating Technique, Duke University School of Nursing, 1952—*.

JENNET M. WILSON, R.N., B.S.N.E.

*Instructor in Obstetrical Nursing*

Diploma, Reading Hospital School of Nursing, Reading, Pennsylvania, 1940; B.S.N.E., Duke University, 1952; Staff Nurse, 1940-42; Head Nurse, Medical Ward, Baltimore City Hospital, Baltimore, Maryland, 1942-43; U. S. Navy Nurse Corps (Separated as I.T. (Jg), 1944-46; Head Nurse, Obstetrics, Baltimore City Hospital, Baltimore, Maryland, 1946-49; *Instructor in Obstetrical Nursing, Duke University School of Nursing, 1952—*.

## *Division of Nursing Education, Department of Education*

THELMA INGLES, R.N., B.A., M.A.

*Director, Division of Nursing Education*

B.A., University of California at Los Angeles, 1931; Diploma, Massachusetts General Hospital, 1936; M.S., Western Reserve University, 1942; Assistant Superintendent, Boston Nursery for Blind Children, 1936-37; Instructor, Burbank Hospital, Fitchburg, Mass., 1937-38; Clinic Nurse, Cleveland, Ohio, 1938-42; Head Nurse, St. Luke's Hospital, Cleveland, Ohio, 1942-43; Educational Director, University of Virginia Hospital, 1943-45; Educational Director and Acting Superintendent, Admiral Bristol Hospital, Istanbul, Turkey, 1945-48; Assistant Director, Division of Nursing Education, 1949-1951; *Director, Division of Nursing Education, Duke University School of Nursing, 1952—*.

LUCY E. MASSEY, R.N., B.A., M.A.

*Assistant Professor of Public Health Nursing*

JOSEPHINE RAPPAPORT, R.N., B.S., M.A.

*Assistant Professor of Nursing Education*

Diploma, D. Ogden Mills School of Nursing, Trudeau, N. Y., Affiliation Yale School of Nursing and Manhattan Maternity Hospital, 1929; University of Minnesota, Postgraduate course in Surgical Nursing, 1932-33; B.S. in Supervision in Schools of Nursing, Teachers College, Columbia University, 1933-35; Supervisor and Assistant Director of Nursing, Milwaukee General Hospital, 1930-32; M.A., Columbia Univ., 1949; Supervisor, United Hospital, Port Chester, N. Y., 1935-37; Educational Director, Syracuse University Hospital, 1937-41; Educational Director, Sinai Hospital, Baltimore, Maryland, 1941-43; Chief Nurse, War Relocation Authority, Dept. of Interior, 1943-45; Assistant Chief Nursing Education and Chief Nurse, Veterans Administration Hospitals, 1945-50; Assistant Professor, Northwestern State College, Natchitoches, Louisiana-Director of Shreveport Division, 1950-51; Instructor, Extension Division, West Virginia University, Morgantown, W. Va., 1951; *Assistant Professor of Nursing Education, Duke University School of Nursing, 1952—*.

FLORENCE K. WILSON, B.A., M.A., R.N.

*Professor of Nursing Education*

HALINA A. ZUKOWSKI, R.N., B.S., M.L.

*Assistant Professor of Nursing Education and Director of the Program in Advanced Psychiatric Nursing*

Diploma, Grace Hospital School of Nursing, Detroit, Michigan, 1944; Staff Nurse, Florence Crittendon Hospital, Detroit, Michigan, March-Dec., 1944; Staff Nurse, University Hospital and Advanced Psychiatric Nursing Program, University of Minnesota, Minneapolis, Minnesota, Jan.-April, 1945; Assistant in Nursing Arts, Grace Hospital, Detroit, Michigan, May-Sept., 1945; Psychiatric Nurse, Henry Ford Hospital, Detroit, Michigan, April-Sept., 1946; B.S. in Nursing, Nursing Education Major, Wayne University, Detroit, Michigan, Jan., 1947; Night Supervisor, Emergency Room, Tampa Municipal Hospital, Tampa, Florida, Feb.-Nov., 1947; Instructor, Kalamazoo State Hospital, Kalamazoo, Michigan, Jan.-Sept., 1949; M.L., University of Pittsburgh, Pittsburgh, Pennsylvania, Sept., 1950; Director of Nurses, Highland Hospital, Asheville, North Carolina, Sept., 1950-July, 1952; *Assistant Professor of Nursing Education and Director of the Program in Advanced Psychiatric Nursing, Duke University School of Nursing, 1952—*.

## *Members of Other Faculties of the University Giving Instruction*

**EDWIN PASCAL ALYEA, S.B., M.D.,** *Clinical Professor of Urology.*

S.B., Princeton, 1919; M.D., Johns Hopkins, 1923; Int. in Med. Int. and Ass't Res. in Surg., Ass't Res. and Res. in Urol., Johns Hopkins Hosp., 1923-1929; Ass't and Instr. in Surg., and Instr. in Urol., Johns Hopkins Med. Sch., 1925-1929; *Urologist, Duke Hospital, 1930—.*

**WILLIAM BANKS ANDERSON, A.B., M.D.,** *Professor of Surgery in Charge of Ophthalmology.*

A.B., North Carolina, 1920; M.D., Johns Hopkins, 1924; Int., Union Mem. Hosp., Balto., 1924-1925; Int., Mass. Eye and Ear Infirmary, 1925-1927; *Ophthalmologist, Duke Hospital, 1930—.*

**LENOX DIAL BAKER, M.D.,** *Professor of Surgery in Charge of Orthopaedics.*

M.D., Duke, 1933; Int. in Orth. Surg. and in Gen'l Surg.; Ass't Res. in Orth. Surg., and Res. in Orth., Johns Hopkins Hosp., 1933-1937; Res., Children's Hosp. Sch., 1936; Ass't and Instr., Orth. Surg., Johns Hopkins Med. Sch., 1935-1937; *Orthopaedist, Duke Hospital, 1937—.*

**BETTY ALICE BARNARD, B.S.,** *Teaching Dietitian.*

B.S., Mississippi State College, 1950; Intern in Dietetics, Duke Univ. Hospital; *Staff Dietitian, Duke Univ. Hospital, 1951—.*

**JASPER LAMAR CALLAWAY, B.S., M.D.,** *Professor of Medicine in Charge of Dermatology and Syphilology.*

M.D., Duke, 1932; B.S., Alabama, 1935; Ass't Instr. in Derm. and Syphil. Univ. of Pa. Med. Sch., 1932-1933; Int. and Ass't Res. in Med., Duke Hosp., 1933-1935; Instr. in Phys. Diag. and Path., Univ. of Alabama, Jan.-July, 1935; Instr. in Derm. and Syphil., Pa. Sch. of Med., 1935-1937; Ass't Field Physician, U. S. Public Health Serv., Feb.-July, 1937; *Associate Physician and Dermatologist, Duke Hospital, 1937—.*

**BAYARD CARTER, A.B., B.A., M.A., M.D.,** *Professor of Obstetrics and Gynecology and Chairman of the Department.*

A.B., Delaware, 1920; B.A. and M.A., Oxford, 1923 and 1924; M.D., Johns Hopkins, 1925; Member Obs. and Gyn. Staff of New Haven Hosp. and Yale Med. Sch., 1925-1929; Assoc. Prof. Obs. and Gyn., and Head of Dept., Univ. of Va. Med. Sch., 1929-1931; *Obstetrician and Gynecologist, Duke Hospital, 1931—.*

**WILBURT CORNELL DAVISON, A.B., B.A., B.Sc., M.A., M.D., D.Sc., LL.D.,** *Dean of the School of Medicine and Professor of Pediatrics.*

A.B., Princeton, 1913; B.A., B.Sc., and M.A., Oxford, 1915, 1916, and 1919; M.D., Johns Hopkins, 1917; D.Sc., Wake Forest, 1932; LL.D., North Carolina, 1944; Int., Radcliffe Infirmary, 1915-1916; Capt., Med. Corps, A.E.F., 1917-1919; Ass't Res., Assoc. Ped., Acting Pediatrician in Charge, Johns Hopkins Hosp., 1919-1927; Instr., Med. Sch., 1919-1927; *Pediatrician, Duke Hospital, 1927—.*

**SUSAN COONS DEES, A.B., M.S., M.D.,** *Assistant Professor of Pediatrics.*

A.B., Goucher, 1930; M.D., Johns Hopkins, 1934; M.S., Minnesota, 1937; Int., Johns Hopkins Hosp., 1934-1935; and Ass't Res. in Med., Strong Mem. Hosp., 1935-1936; Int. in Path., Balto. City Hosps., and Ass't, Johns Hopkins Protein Clinic, 1936-1937; Research Fellow in Ped., Univ. of Minnesota Hosp., 1937-1938; Ass't Disp. Physician, Johns Hopkins Hosp., 1938-1939; *Assistant Pediatrician, Duke Hospital, 1939—.*

**KENNETH LINDSAY DUKE, A.B., Ph.D.,** *Associate Professor of Anatomy.*

A.B., Brigham Young, 1936; Ph.D., Duke, 1940; Grad. Ass't in Zool., Brigham Young Univ., 1936-1937; Grad. Ass't in Zool., 1937-1939, and Fellow in Zool., Duke, 1939-1940; Visiting Instr. in Anat., U. of Missouri, 1944; Visiting Ass't Prof. of Anat., U. of Tenn. School of Med., 1949; Assoc. in Anat., and Ass't Prof., Duke, 1940-1946; 1940—.

**WATT WEEMS EAGLE, A.B., M.D.,** *Professor of Surgery in Charge of Otolaryngology.*

A.B., North Carolina, 1918; Grad. Stud., North Carolina, 1918-1919; M.D., Johns Hopkins, 1925; Int., Church Home and Infirmary, Baltimore, 1925-1926; Int., Ass't Res. and Res. in Laryngol., Johns Hopkins Hosp., 1926-1929; Ass't and Instr. in Laryngol., Johns Hopkins Med. Sch., 1927-1930; *Otolaryngologist, Duke Hospital, 1930—.*

**JOHN WENDELL EVERETT, A.B., Ph.D.,** *Professor of Anatomy.*

A.B., Olivet, 1928; Ph.D., Yale, 1932; Instr. in Biol., Goucher, 1930-1931; Ass't and Assoc. Prof. of Anat., Duke, 1932-1946, 1932—.



**JEWETT GOLDSMITH, A.B., M.D., *Assistant in Neuropsychiatry.***

A.B., The Johns Hopkins University, 1938; M.D., University of Maryland, 1942; Rotating Intern, Kings County Hospital, Brooklyn, N. Y., 1942-1943; Lieut., Medical Corps, N. S. Naval Reserve, 1943-1946; *Veterans Administration Senior Resident in Psychiatry, Duke Hospital, 1946—.*

**JEROME SYLVAN HARRIS, A.B., M.D., *Associate Professor of Pediatrics and Biochemistry.***

A.B., Dartmouth, 1929; M.D., Harvard, 1933; Med. House Officer, House of Good Samaritan, Boston, Oct., 1933-Jan., 1934; Int. in Med., Univ. of Chicago Clinics, 1934-1935; Int., Infant's and Children's Hosp., Boston, 1935-1936; Ass't Res. and Assistant Pediatrician, Duke Hosp., 1936-1942; Lt. Col., Med. Corps, U. S. Army, 1942-45; *Assistant Pediatrician, Duke Hospital, 1946—.*

**DERYL HART, A.B., A.M., M.D., *Professor of Surgery and Chairman of the Department.***

A.B. and A.M., Emory, 1916 and 1917; M.D., Johns Hopkins, 1921; Int. in Surg., Ass't Res. in Surg. Path., Ass't Res. and Res. in Surg., and Assoc. Surg., Johns Hopkins Hosp., 1921-1930; Ass't in Path., Instr. and Assoc. in Surg., Johns Hopkins Med. Sch., 1922-1930; *Surgeon, Duke Hospital, 1930—.*

**HELEN LOUISE KAISER, R.P.T.T., *Instructor in Physical Therapy, in Charge of Division of Physical Therapy.***

R.P.T.T., Harvard, 1921; Ass't Instr., Harvard Med. Sch., Course for Graduates, 1921-1922; Chief Phys. Therap., Detroit Orthop. Clinic, 1922-1925; Cleveland Clinic Found., 1926, and Mt. Sinai Hosp., 1927-1943; *Physical Therapist, Duke Hospital, 1943—.*

**ANGUS MCBRYDE, B.S., M.D., *Associate Professor of Pediatrics.***

B.S., Davidson, 1924; M.D., Pennsylvania, 1928; Int. and Res. in Ped., Univ. of Pa. Hosp., 1928-1930; Ass't Res. in Ped., Johns Hopkins Hosp. and Ass't in Ped., Johns Hopkins Med. Sch., 1930-1931; *Assistant Pediatrician, Duke Hospital, 1931—.*

**JOSEPH ELDRIDGE MARKEE, B.S., Ph.D., *Professor of Anatomy and Chairman of the Department.***

B.S. and Ph.D., Chicago, 1925 and 1929; Douglas Smith Fellow in Anat., 1929, Instr. in Anat., Chicago, 1929; Research Fell., Gen. Ed. Bd., Carnegie Lab. of Embry., Balto., 1935-1936; Visiting Prof. of Anat., Univ. of Tenn., 1942; Instr., Ass't Prof., Assoc. Prof. and Prof. of Anat., Stanford, 1929-1943; 1943—.

**ELSIE W. MARTIN, A.B., M.S., *Professor of Dietetics.***

A.B., Whitman, 1913; M.S., Teachers Coll., Columbia, 1927; Prof. of Home Economics, Puget Sound, 1915-1917; Dietitian, Univ. of Iowa Hosp., 1919-1920, and Charles T. Miller Hosp., St. Paul, Minn., 1920-1926; Admin. Dietitian, Lakeside Hosp., Cleveland, 1927-1930; *Chief Dietitian, Duke Hospital, 1930—.*

**ELIJAH EUGENE MENEFEY, JR., B.S., M.D., *Assistant Professor of Medicine.***

B.S. and M.D., Duke, 1936; Int., N. Y. State Sanatorium, Raybrook, July 1-Aug. 31, 1936; Int. in Med., Duke Hosp., 1936-1937; Research Fellow in Med., and Bact., Duke Med. Sch., 1937-1938; Ass't Cardiology, Mass. Gen. Hosp., 1938-1939; Res. in Tbc., Bellevue Hosp., New York City, Jan. 1-Dec. 31, 1939; *Assistant Physician, Duke Hospital, 1940—.*

**EDWARD STEWART ORGAIN, M.D., *Associate Professor of Medicine.***

M.D., Virginia, 1930; Int., Ass't Res. and Res. in Med., Univ. Hosp., Cleveland, 1930-1933; Res. Fellow in Med., assigned to Cardiology, Mass. Gen'l Hosp., 1933-1934; *Assistant Physician, Duke Hospital, 1934—.*

**WALTER SCOTT PERSONS, A.B., *Instructor in Physical Education.*****KENNETH LEROY PICKRELL, M.D., *Associate Professor of Surgery.***

M.D., Johns Hopkins, 1935; Int., Ass't Res. and Res. in Surg., Johns Hopkins Hosp., 1935-1944; *Assistant Surgeon, Duke Hospital, 1944—.*

**HILDA PERSONS POPE, A.B., M.A., Ph.D., *Instructor in Bacteriology.***

A.B., Georgia State College for Women, 1944; M.A. and Ph.D., Duke University, 1946 and 1949; *Instructor and Assistant Bacteriologist, Duke Hospital, 1948—.*

**MARY CLYDE SINGLETON, B.S., R.P.T.T., *Assistant in Physical Therapy.***

B.S. Woman's College, University of North Carolina, Greensboro, N. C., 1932; R.P.T.T., Washington School of Physical Education, Washington, D. C., 1934; Assistant in Physical Therapy, Watts Hospital, Durham, N. C., 1934-35; Assistant in Physical Therapy, Veterans Administration, Walla Walla, Washington, 1935-36; *Clinical Supervisor, Physical Therapy Department, Duke Hospital, 1940—.*



**EUGENE ANSON STEAD, JR., B.S., M.D.,** *Florence McAlister Professor of Medicine and Chairman of the Department.*

B.S. and M.D., Emory Univ., 1928 and 1932; Int. Med., Peter Bent Brigham Hosp., 1932-1933; Research Fellow in Med., Harvard, 1933-1934; Int. Surg., Peter Bent Brigham Hosp., 1934-1935; Ass't Res. in Med., Cincinnati Gen'l Hosp., 1935-1936; Res. in Med., Cincinnati Gen'l Hosp., 1936-1937; Instr. in Med., Univ. of Cincinnati, 1935-1937; Res. Phys., Thorndike Memorial Laboratory; Ass't in Med., Harvard and Boston City Hosp., 1937-1939; Associate in Med., Peter Bent Brigham Hosp., 1939-1942; Instr. in Med., Harvard, 1939-1941; Assoc. in Med., Harvard, 1941-1942; Act. Phys.-in-Chief, Peter Bent Brigham Hosp., 1942; Prof. of Med. and Phys.-in-Chief, Emory Div. of Grady Hosp., 1942-1946; Dean, Emory Univ. Sch. of Med., 1945-1946; *Physician, Duke Hospital, 1947—*.

**CHARLES RONALD STEPHENS, B.S., M.D.C.M., D.A.,** *Professor of Anesthesiology and Chief of Division of Anesthesiology.*

B.S. and M.D.C.M., McGill University, 1938 and 1940; Int., Rotat., Montreal General Hosp., 1940-1941; Res. in Med., Jeffrey Hale's Hosp., Quebec City, Que., 1941-1942; Major, Royal Canadian Army Medical Corps, 1942-1946; Ass't Res., Res. in Dept. of Anes., McGill Univ. School of Anes., December, 1942-March, 1943; Course in Anes., Royal Infirmary, Oxford; Anesthetist to Montreal Neurological Institute, June, 1946-July, 1947; Director, Dept. of Anes., Children's Memorial Hosp., Montreal, August, 1947-June 30, 1950; Lecturer, Dept. of Anes., McGill Univ., August, 1947-August, 1949; Ass't Prof., Dept. of Anes., McGill Univ., August, 1949-June 30, 1950; *Anesthetist, Duke Hospital, 1950—*.

**HAYWOOD MAURICE TAYLOR, B.S., M.S., Ph.D.,** *Associate Professor of Biochemistry and Toxicology.*

B.S., M.S., and Ph.D., North Carolina, 1920, 1921, and 1924; Instr. in Chem. and Pharmaceut. Chem., North Carolina, 1920-1925; Research Chemist., E. R. Squibb & Sons, and Fisk Rubber Co., 1925-1928; Instr. in Ophthalmol., and Chemist to Wilmer Institute, Johns Hopkins Hosp., 1928-1930; Visiting Fellow in Forensic Med., New York Univ., 1934; *Associate Biochemist and Toxicologist, Duke Hospital, 1930—*.

**RUTH JANET WIEN, M.S.**

*Associate in Medical Social Service.*

**ELIZABETH R. WAGGONER, B.S.,** *Director of Occupational Therapy.*

B.S., Ohio State University, 1946; Crile Veterans Administration Hospital, 1946-48; Director of Occupational Therapy, Rehabilitation Center of Cincinnati Goodwill Industries, Cincinnati, Ohio, 1948-50; Postgraduate Course, Georgia Warm Springs Foundation, 1951; *Director of Occupational Therapy, Duke Hospital, 1951—*.

**ELISABETH STELLE YEARICK, B.S., M.S.,** *Therapeutic Dietitian.*

B.S. and M.S., University of Wisconsin, 1935; Intern in Dietetics, University of Michigan Hospital; Dietitian, State Welfare Home, Smyrna, Del.; Bridgeport Hospital, Bridgeport, Conn.; Mount Park Hospital, St. Petersburg, Fla.; *Therapeutic Dietitian, Duke Hospital, 1946—*.

# The School of Nursing



## *Opportunities in Nursing*

HEALTH services to the people of the United States are being expanded at a very rapid rate. Most of the states are at present engaged in studying the need for hospitals and making plans to meet these needs. Departments of Health are making surveys as to the adequacy of their programs and how these programs may be integrated with the programs of hospitals to meet the needs of the population for medical care. These expanding activities call for more personnel with professional preparation.

The professional nurse must recognize physical symptoms of illness which are commonly identified with organic changes. She must also recognize those heretofore less considered manifestations of illness such as anxieties, conflicts, and frustrations, which have a direct influence on organic changes and are now thought to be the result of an incompatible interaction between a person and his environment.

Nurses in their longer contacts with individuals have more opportunities to observe behavior and to listen to expression of thought under varying conditions than do physicians whose contacts are necessarily intermittent and brief. For this reason the nurse must be able to direct her actions and her verbal expressions on the basis of a sound understanding of human behavior and human relationships. She must be able to assess the health needs of the family and community as well as the individual.

The first preparation needed for meeting the requirements in the field of nursing is secured in a school of nursing. For well qualified candidates this school should be a collegiate school offering a program which will give a good basic understanding of the principle and practices of the art of nursing. After graduation from the school of nursing the student may wish preparation needed for the work of a head nurse, supervisor or other administrative position in a hospital or public health organization.

To give the applicant for admission to a school of nursing information as to the admission requirements, programs, fees and living arrangements for preparation in nursing, we offer this bulletin describing the following programs.

1. Program for basic preparation in professional nursing at the

Duke University School of Nursing leading to a diploma in nursing and admission with advanced standing to a degree program. (Page 27.)

2. Program for basic preparation in professional nursing at the School of Nursing, Duke University, leading to the degree of B.S. in nursing. (Page 30.)
3. Programs for preparing head nurses, supervisors and administrators for schools of nursing and nursing services in hospitals and other health organizations as planned in the Division of Nursing Education, Duke University, Durham, N. C. (Page 38.)

### *General Information*

The School of Nursing of Duke University was established in 1931 in association with the School of Medicine of the University and Duke Hospital through the gift of the late James B. Duke. The administrator of the School of Nursing is a member of the Committee on Health Affairs which promotes the common interests of the Medical School, School of Nursing, and Duke Hospital.

The central aim of the educational program is to select young women with aptitudes, interests and personal characteristics needed in nursing, and to provide an educational program enabling them to develop skills, knowledge and attitudes needed for professional nursing service in the community and for maximum personal development.

This program is designed to prepare nurses for:

1. General duty in hospitals.
2. Private duty in hospitals and homes.
3. First level positions under supervision in public health nursing agencies.

### *Facilities for Instruction*

The facilities for instruction include the facilities for instruction available in the undergraduate, professional and graduate schools and colleges of Duke University and the clinical facilities of Duke Hospital and of the North Carolina Cerebral Palsy Hospital. As soon as the Durham Veterans Hospital is receiving patients, the facilities of that hospital will be available.

## *Clinical Facilities*

Duke Hospital has every modern convenience for the diagnosis, proper nursing care, welfare and comfort of the patients including 591 hospital beds, 50 bassinets, a large public out-patient department, a large private diagnostic clinic and offices and examining rooms for the doctors who serve on the staff of the hospital. There are very close relationships established between the hospital and the Health Departments in North Carolina. A system for referral of patients to the nursing service of the Health Departments has been established between the supervisors of the nursing service in the hospital and the nursing service of the Health Department.

The beds in Duke Hospital are assigned to the various services as follows: *Medicine*, including dermatology and neurology, has 77 ward beds; *surgery*, including urology, otolaryngology, ophthalmology, and orthopaedics, 135 ward beds; *obstetrics*, including *gynecology*, 59, and 50 bassinets; *neuropsychiatry*, 9; and *pediatrics*, 40. There are 209 private rooms and semiprivate cubicles, 12 air-conditioned operating rooms, 4 obstetric delivery rooms. Except for emergencies, all patients are admitted to the hospital from either the out-patient clinic or the private diagnostic clinic.

The hospital has been approved for internships and residencies by the Council on Medical Education and Hospitals of the American Medical Association.

The out-patient department has an average of 466 visits per day. All services including psychiatry carry on an active program in the out-patient departments. Students are assigned to the out-patient department for at least four weeks during their program in the School of Nursing. The first assignment is in the first year, to give the student some knowledge of the background of her patients; subsequent assignments are made concurrent with the experience on each service.

## *Libraries*

The reference library of 2,298 books and periodicals of special interest to students majoring in nursing is located in Hanes House. Students may use the general libraries on the East and West Campuses and the Duke Hospital Library. A collection of visual aids including films is being assembled with an index in the library for the use of students and instructors in the School of Nursing.

*Classrooms and Laboratories*

In the wing of Hanes House where the administrative offices of the School of Nursing are located are a large classroom seating 100 people and equipped with audio-visual aides, a small classroom with seating capacity of 50 also equipped with screen and movie projector, a nursing arts laboratory with equipment for nursing practice for sixteen students, and a conference room for faculty committees small discussion groups and student council meetings. The School of Nursing uses the laboratories of the Medical School for courses in science and classrooms in the hospital for clinical nursing courses.



# Admission



## *Application for Admission*

Applications for admission to the School of Nursing should be made to the Committee on Admissions of the School of Nursing, Hanes House, Duke University, Durham, N. C. Application forms will be sent on request.

## *Admission*

Applicants may qualify for admission as members of the Freshman Class, as students with advanced standing, or as members of the first year of the diploma program. Since the profession of nursing requires women with a high sense of integrity and responsibility, with culture and intelligence whose predominant interest is service, the Admissions Committee will select the applicants who, in its opinion, seem best qualified for nursing. The Admissions Committee must have on file the records indicating the fulfillment of the following requirements before considering an applicant.

1. Graduation from high school with sixteen units of credit as indicated.
2. Aptitude and achievement tests.
3. Three recommendations.
4. Interviews.
5. Physical and dental examination.
6. Transcript of college courses for those who have attended college.

## *Specific Requirements*

1. An applicant for admission to the School of Nursing must present at least sixteen acceptable units of secondary school credit. A unit of credit is allowed for a course of study pursued throughout an academic year at an accredited secondary school, if the course has been completed satisfactorily.

1. Twelve units must be in English, foreign language, history\* and

\* Applicants who do not present two acceptable units of history must take history in college.

social studies, mathematics, and natural science; and must include:

- (a) English—3 units.
- (b) Algebra—1 unit.
- (c) Plane geometry—1 unit.

2. Four units may be in the five subjects listed above or from those in the following table. The units indicate the maximum amount of credit acceptable in each subject:

<i>Subject</i>	<i>Units</i>	<i>Subject</i>	<i>Units</i>
Agriculture .....	2	Mechanical Drawing .....	2
Art .....	1	Music .....	1
Commercial Subjects .....	3	Physical Geography.....	1
Household Economics .....	2	Woodworking, Machine Work .....	2

Other units offered in subjects not included in this list will be considered for acceptance on the basis of full statements transmitted with the applicant's record from the school recommending her.

II. Satisfactory scores on a battery of aptitude and achievement tests.

III. Three recommendations, two of which must come from recent high school or college instructors.

IV. Interviews with two members of the Duke University School of Nursing faculty, whenever possible.

V. Records of recent physical and dental examination.

A physical examination at Duke Hospital is required for final acceptance into the School of Nursing. This examination includes a chest x-ray and a tuberculin test.

**ADMISSION TO ADVANCED STANDING IN THE SCHOOL OF NURSING:** An applicant for advanced standing must have fulfilled the equivalent of the requirements for admission to the Freshman Class, must present official certificates of all work completed in other institutions, and must have an honorable dismissal from each institution previously attended. Credit for work completed will be determined in relation to the curriculum requirements of the School of Nursing.

Applicants for advanced standing in the School of Nursing should present, as far as possible, subjects corresponding to those required by the School. They may not, during their first semester, register for more than the minimum number of hours required of the class which they enter, except by permission of the Dean of the School of Nursing.

Transfer credits are tentatively evaluated pending the completion of two semesters of work in residence. To validate provisional credits the student must earn at least an average of C in a normal load of work. Transfer grades of C or above are rated at one quality point

per credit hour when validated. Credits with grades of D are not acceptable.

The maximum amount of credit acceptable from a junior college is 60 semester hours, exclusive of physical education. No credit is given for work completed by correspondence, and credit for no more than six semester hours is allowed for extension courses. Any extension work accepted must be specifically approved by the dean of the college to which the student seeks admission.

# Financial Information and Living Accommodations



Fees paid by students and services of the students to the hospital cover only a part of the cost of their instruction and maintenance and the operation of the University. Income from endowment and contributions from alumni, alumnae, and other public-spirited men and women meet the balance, which constitutes more than half the total cost.

## *Fees and Estimated Expenses—Diploma Program*

A registration fee of \$25.00 is required at the time of acceptance into the school. This advanced fee is applied toward the payment of tuition for the first year. One-half of the tuition fee of \$100.00 is payable at the beginning of each semester. An activities fee of \$15.00 is charged each year. Students pay for their uniforms and are responsible for payments for replacements.

	<i>First Year</i>	<i>Second Year</i>	<i>Third Year</i>
Tuition .....	\$100.00	\$100.00	\$100.00
Pre-entrance tests .....	5.00		
Books .....	40.00	10.00	10.00
Activities .....	15.00	15.00	15.00
Room Key Deposit .....	1.00		
Uniforms .....	84.20		
Graduation Fees .....			9.25
	<u>\$245.20</u>	<u>\$125.00</u>	<u>\$134.25</u>

The fee for pre-entrance tests and health examination is payable at time testing is done. Checks should be made payable to Duke University.

No student is permitted to attend classes until she has complied with all regulations concerning registration and payment of bills for the term.

Arrangements for purchase of uniforms are made with the uniform company late in September. At that time, \$75.00 of the cost of the uniforms is paid.

Duke Hospital provides board, room and laundry for students in the School of Nursing in return for their services in the hospital. The rooms in the residence are fully equipped.

Refunds of tuition and other fees are made to students who withdraw within 14 days after the beginning of the semester. On and after the fifteenth day all fees are considered as earned and no refunds are made.

Students are entitled to one transcript free of charge. Additional copies are supplied at \$1.00 each. Records are not released when the Treasurer's office reports an unpaid account.

### *Fees and Estimated Expenses—Degree Program*

A registration fee of \$20.00 is required of all new students. This fee is payable only once; it is not refundable. A room deposit of \$25.00 is also required of all new students. The general fee is in lieu of special fees usually charged for matriculation, use of laboratories, student health service, commencement. One-half of the tuition and general fees are payable at the beginning of each semester.

	<i>First Year</i>	<i>Second Year</i>	<i>Third Year</i>	<i>Fourth Year</i>
Tuition—University .....	\$ 350.00	\$350.00		
Tuition—School of Nursing.....		100.00	\$100.00	\$100.00
General Fee .....	150.00	150.00		
Room Rent .....	171.00			
Board .....	567.50			
Laundry .....	30.00			
Pre-entrance tests .....	5.00			
Books .....	40.00	40.00	40.00	10.00
Activities .....		15.00	15.00	15.00
Uniforms .....		84.20		
Graduation Fees .....				14.25
	<u>\$1,313.50</u>	<u>\$739.20</u>	<u>\$155.00</u>	<u>\$139.25</u>

The fee for pre-entrance tests and health examination is payable at time testing is done. Checks should be made payable to Duke University.

No student is permitted to attend classes until she has complied with all regulations concerning registration and payment of bills for the term.

Arrangements for purchase of uniforms are made with the uniform company late in September. At that time, \$75.00 of the cost of the uniforms is paid.

A fee for public health nursing will be added in the senior year when arrangements for the experience are completed.

After the first year the Duke Hospital provides board, room and laundry for students in the degree program of the School of Nursing in return for their services in the hospital. The rooms in the residence are fully equipped.

Students may have their bills sent to parents or guardians provided



the Treasurer has been notified in writing with sufficient antecedence. Failure of a student or of a parent or guardian to pay bills on the dates scheduled will debar the student from class attendance until her account is settled in full; subsequent withdrawal does not entitle her to a refund. No student is considered by the Faculty as a candidate for graduation until she has settled with the Treasurer for all her indebtedness to the University. A student who has not settled all her bills with the Treasurer is not allowed to stand the final examinations of the academic year.

Refunds of tuition and other fees are made to students who withdraw within 14 days after the beginning of the semester. On and after the fifteenth day all fees are considered as earned and no refunds are made.

Due to rising costs a readjustment in charges, including room-rents, is being considered. In the event of an adjustment applicants will be notified.

Students are entitled to one transcript free of charge. Additional copies are supplied at \$1.00 each. Records are not released when the Treasurer's Office reports an unpaid account.

### *Loan Fund*

Through the generosity of the Kellogg Foundation, loan funds sufficient to cover tuition costs are available to students who demonstrate a real need and who are qualified. There are also a limited number of tuition scholarships for exceptionally qualified students.

# General Regulations



## *Residence*

Students are housed in a fireproof residence located near the hospital. Rooms are adequately equipped with blankets and linen, making further provision by the student unnecessary. Life in the dormitory is under the regulations established by the Student Government Association with advice from the faculty. The dormitory, Hanes House, is new and planned for comfortable living.

## *Health Regulations*

The School has general supervision of the student's health. All physical defects, such as defective vision, dental needs, etc., must be corrected before admission to the School. The student must have been immunized against typhoid fever and vaccinated against smallpox during the current year. All students are required to pass a physical examination before admission to the School of Nursing and at intervals thereafter, a final examination being given at the end of the course. Students whose condition needs further observation may be admitted tentatively, but must cancel their application if later findings prove them physically unfit for nursing.

Students are allowed three weeks' sick leave during the three years of clinical practice.

## *Health Program*

With the exceptions noted below, full medical and surgical care is furnished to all regularly matriculated student nurses. It includes hospitalization in the Student Nurses Infirmary or in a private nursing unit according to the preference of the student or the seriousness of the illness. Medical and Surgical care, drugs, dressings, x-ray, laboratory, and staff but not private nursing is furnished without charge. Refraction of eyes, treatment of teeth and of all chronic and pre-existing conditions, such as diseased tonsils, hernias, pilonidal cysts and other elective surgery, chronic skin conditions, endocrine disturbances, etc., and accidents or illnesses occurring during vacations or while off the

campus, are not included in this service. The cost of any necessary braces and orthopaedic appliances, as well as of special nursing, must be borne by the student and blood used for transfusions must be paid for or replaced. If the student has insurance providing hospital, medical or surgical benefits, the benefits shall be applied to the cost of her medical care.

Advisory consultation with a Psychiatrist is available through the Dean of Nursing at no expense to the student but office visits for psychotherapeutic interviews cannot be included in this service.

First year students in the four year degree program are not furnished maintenance by the hospital and will be asked to pay for board while hospitalized. Insurance benefits, if any, will be used to cover this.

A nurses health office is maintained in the student nurses' dormitory for the purpose of treating ambulatory cases. Admissions to the hospital are arranged through this office.

Swimming, basketball and softball are offered as student activities, in addition to social activities. First-year students are required to elect either swimming or basketball.

### *Readmission*

Students who are absent for more than one month on account of illness or have leave of absence may be readmitted to the same or a succeeding class at the discretion of the faculty.

### *Leave of Absence*

Students are not expected to leave the School because of family or other personal reasons. Absence from the School is granted only in extreme cases. If a student is obliged to be away for a period exceeding four weeks, the Dean of the School of Nursing will determine the date of her return and the question of resuming her place in her original class.

### *Dismissal*

The faculty of the School of Nursing may, at any time, place a student on probation or release her from the School if, in its opinion, she does not have the qualifications necessary for the profession.

# The Duke University School of Nursing Alumnae Association



The Duke University School of Nursing Alumnae Association was formed for the purpose of rendering mutual help and improvement in professional work, and for the promotion of good fellowship among the graduates of the School.

The Alumnae Association co-operates with the North Carolina State Nurses' Association and the American Nurses' Association in working for the professional and educational advancement of nursing.

*Alumnae Notes*, a quarterly news publication, furnishes items of interest to the members of the Association.

# Santa Filomena



Santa Filomena, Senior Honorary of the Duke University School of Nursing, was organized in April, 1944, under the sponsorship of the 1943 class. The purpose of this organization is to recognize achievement and promote leadership.

The members are chosen from the rising Senior Class and are publicly tapped by the old members at the first meeting of the SGA in their senior year, the number chosen not exceeding nine or being less than five. Each candidate must show recognized qualities of leadership or must have made some contribution toward the betterment of the School of Nursing. She must have demonstrated superior nursing abilities and her scholastic record must be eighty or above throughout her first two years.

Santa Filomena strives for better interclass relations, and to promote better nursing and higher nursing standards. The specific objectives are chosen by the members each year. All proceedings of the meetings of this organization are held in secrecy as are all ceremonies except the public tapping of the new members. The Santa Filomena's flower is the white lily and the members wear a small gold Florence Nightingale lamp.



# Awards to Nurses



## BAGBY AWARD IN PEDIATRICS

The Bagby Award in Pediatrics (a subscription to the *American Journal of Nursing*) is given at graduation to the best Duke student nurse in pediatrics.

## THE FLORENCE NIGHTINGALE PLAQUE

The Florence Nightingale plaque is awarded to a graduating student by the Alumnae Association for leadership, scholarship and nursing skill.

## THE MOSELEY AWARD

The Moseley Award of \$25.00 is given to the student in the senior class who has shown the most skill in Nursing Arts throughout her program in the School of Nursing.

# Requirements for Degrees in Nursing



## *Programs of the School of Nursing*

The School of Nursing offers two programs for students wishing to prepare for the profession of nursing. The diploma program covers a period of three calendar years with one month of vacation each year. At the completion of this program, the student receives the diploma in nursing and is then eligible for the examinations given by the North Carolina State Board of Nurse Examiners.

The program leading to the degree of B.S. in nursing covers a period of four calendar years. At the completion of this program, the student receives the degree of B.S. in Nursing and is then eligible for the examinations given by the North Carolina State Board of Nurse Examiners. The School is fully approved by the North Carolina Joint Committee on Standardization.

### *Program I Leading to a Diploma in Nursing*

#### SUMMER SESSION (12 WEEKS)

<i>First Term</i>	S.H.	<i>Second Term</i>	S.H.
Chemistry .....	3	Zoology .....	3
N1 Orientation to the Health Field..	2	N2 Introduction to Nursing.....	1
	<u>5</u>		<u>4</u>

#### FIRST YEAR

<i>First Semester</i>	S.H.	<i>Second Semester</i>	S.H.
Anatomy & Physiology.....	3	Anatomy & Physiology.....	3
Physiological Chemistry .....	3	N92 Medical & Surgical Nursing....	6
Nutrition .....	3	Microbiology .....	3
N61 Nursing Arts .....	4	N62 Nursing Arts .....	2
Social Psychology .....	2	Social Psychology .....	2
	<u>15</u>		<u>16</u>

#### SUMMER SESSION (12 WEEKS)

	S.H.
N94 Medical & Surgical Nursing.....	3

#### \*SECOND YEAR

<i>First Semester</i>	S.H.	<i>Second Semester</i>	S.H.
N140 Medical & Surgical Nursing including O. R. & Diet Therapy .....	4	N130 Obstetric Nursing .....	4
Child Development .....	3		<u>4</u>
	<u>7</u>		

\* Class divided into three sections and rotated on these three services.

## SUMMER SESSION (12 WEEKS)

		S.H.	
N120 Pediatric & Communicable Disease Nursing.....		4	
*THIRD YEAR			
<i>First Semester</i>	S.H.	<i>Second Semester</i> S.H.	
N170 Psychiatric Nursing .....	<u>4</u>	N190 Advanced Medical & Surgical Nursing with Seminar on Nursing Problems .....	2
		N160 Social Foundations of Nursing Education .....	<u>3</u>
			5

*Description of Courses—Diploma Program*

## BIOLOGICAL AND PHYSICAL SCIENCE

**ANATOMY AND PHYSIOLOGY.**—Through the learning experiences in this course, the student gains an understanding and appreciation of the way body structure and body functions serve to maintain and promote health. These understandings and appreciations enable the student to practice and teach good hygiene effectively and to comprehend anatomical and physiological pathology intelligently. As a part of instruction audio-visual aids are used extensively and in conjunction with laboratory work the anatomical structures are demonstrated on dissected human specimens. 6 s.h.

DR. MARKEE, DR. EVERETT, DR. DUKE, MRS. HORNE

**CHEMISTRY.**—A course in the fundamentals of general inorganic chemistry with particular emphasis on the needs of the student nurse. A brief introduction to organic chemistry. 3 s.h.

DR. TAYLOR

**PHYSIOLOGICAL CHEMISTRY.**—This course is designed to aid the student in understanding the chemical mechanisms of the human body both in health and in disease. The student also acquires knowledge concerning the chemical basis of diagnosis and therapy. 3 s.h.

DR. TAYLOR

**MICROBIOLOGY.**—From the learning experiences included in this course the student is enabled to understand and appreciate the role in the prevention of microbial disease. 3 s.h.

DR. POPE

## SOCIAL SCIENCE

**N2. INTRODUCTION TO NURSING.**—Designed to give the student an appreciation of the historical development of some of the present concepts in nursing. 1 s.h.

ASSISTANT PROFESSOR INGLES

**SOCIAL PSYCHOLOGY.**—Through a study of the role of social and cultural patterns in their interaction with the individual personality and through an understanding of behavior development and personality adjustment, it is hoped that the student may advance toward maximum personal, social and professional maturity. By exploration of social patterns she learns something of the structure of contemporary society. Through a study of the techniques used in understanding and getting along with others, the student becomes better able to use these techniques in her own contacts with people. 4 s.h.

ASSISTANT PROFESSOR JOHNSTON

**CHILD DEVELOPMENT.**—A study of principles of human growth and development with special emphasis on the understanding of children's needs, learning and behavior at various levels of development. Importance of infancy and preschool years in the development of the individual. Planned especially for nurses. Two lectures and one laboratory period. 3 s.h.

DR. REICHENBERG-HACKETT

**N160 SOCIAL FOUNDATIONS OF NURSING EDUCATION.**—This course is designed to help the student consider the opportunities open to her, her special

\* Class divided into two sections and rotated on these two services.

aptitudes and abilities, her responsibilities, the fields of work for which she presents potentially the best qualifications and how to get started in a professional career. She is helped to see the place of nursing in the social and economic world of today. Emphasis is placed on the need for cooperation between all professions if satisfactory conditions for the maintenance of health and the prevention of disease are to be realized. 3 s.h.

PROFESSOR WILSON

### NURSING AND ALLIED ARTS

1. ORIENTATION TO THE HEALTH FIELD.—An introduction to basic health needs of the community and the agencies and programs designed to meet them. 2 s.h.

ASSISTANT PROFESSOR MASSEY

61-62. NURSING ARTS.—A study of the fundamentals of healthful living and their application to basic nursing care in the home and in the hospital. Considers the nursing needs of individual patients and provides opportunity to plan and give patient care. 6 s.h. Mrs. BROCK, Miss KNOWLES, Mrs. BUTLER, Miss ROSENBAUM

NORMAL NUTRITION AND DIETETICS.—This course considers the nutritive requirements for individuals in different stages of development, and in different occupations. The methods of supplying foods conforming to the individual nutritional needs are given for varying income levels. Actual foods are compared according to their contribution of specific nutrients, and in relation to their place in the daily diet. 3 s.h.

MISS BARNARD

92. MEDICAL AND SURGICAL NURSING.—A study of basic principles underlying nursing care of patients with common medical and surgical conditions. Pharmacology, nutrition in disease, and therapeutics are included. 6 s.h.

ASSISTANT PROFESSOR INGLES, ASSISTANT PROFESSOR RAPPAPORT,  
MISS CONRAD, MISS GARMON, MISS YEARICK, MEDICAL STAFF

94. MEDICAL AND SURGICAL NURSING.—A continuation of Nursing 92. 3 s.h.

120. PEDIATRIC AND COMMUNICABLE DISEASE NURSING.—Considers basic principles underlying nursing care of infants and children with common diseases and disorders, including communicable diseases. 4 s.h.

MISS HAHOLO

130. OBSTETRIC NURSING.—Considers normal and abnormal phases of the reproductive cycle basic to nursing care of the mother and the newborn child including the premature infant; the effect of reproduction upon individual and family. 4 s.h.

MISS J. WILSON, MISS KIERNAN

140. MEDICAL AND SURGICAL NURSING.—A continuation of Nursing 94. A discussion of principles of surgical aseptic technique basic to nursing practice in the operating room and practice in nutrition on disease is included in this course. 4 s.h.

ASSISTANT PROFESSOR INGLES, ASSISTANT PROFESSOR RAPPAPORT,  
ASSISTANT PROFESSOR MASSEY, MISS CONRAD, MISS CAMPBELL,  
MISS GARMON, MISS YEARICK

170. PSYCHIATRIC NURSING.—Discussion of the principles of psychiatric nursing and the functions and responsibilities of the nurse in the total care of the psychiatric patient with emphasis on mental hygiene and care and rehabilitation of the mentally ill. 4 s.h.

ASSISTANT PROFESSOR ZUKOWSKI

190. ADVANCED MEDICAL AND SURGICAL NURSING.—Designed to clarify and broaden understanding of basic principles requisite for nursing care. Conferences and seminars. 2 s.h.

ASSISTANT PROFESSOR INGLES

## *Program II Leading to a B.S. in Nursing and a Diploma in Nursing*

### FIRST YEAR

<i>First Semester</i>			S.H.	<i>Second Semester</i>			S.H.
Eng	1	Freshman Composition . . . .	3	Eng	2	Freshman Composition . . . .	3
*Hist	1	Historical Background of the World Today . . . . .	3	*Hist	2	Historical Background of the World Today . . . . .	3
*Relig	1	The English Bible . . . . .	3	*Relig	2	The English Bible . . . . .	3
N	1	Orientation to the Health Field . . . . .	2	N	2	Microbiology . . . . .	3
Zool	1	General Zoology . . . . .	4	Zool	2	Introduction to Nursing . . .	1
		Physical Education . . . . .				General Zoology . . . . .	4
			15			Physical Education . . . . .	17

### SUMMER SESSION (6 WEEKS)

#### *First Term*

	S.H.
Chemistry . . . . .	3
Ed 88 Educational Psychology . . . . .	3
	6

### SECOND YEAR

<i>First Semester</i>			S.H.	<i>Second Semester</i>			S.H.
		Anatomy & Physiology . . . . .	3			Anatomy & Physiology . . . . .	3
		Physiological Chemistry . . . . .	3	N	92	Medical & Surgical Nursing..	6
		Nutrition . . . . .	3	Ed	118	Educational Psychology— Developmental . . . . .	3
N	61	Nursing Arts . . . . .	4	N	62	Nursing Arts . . . . .	2
Soc	91	General Sociology . . . . .	3	Soc	92	General Sociology . . . . .	3
		Physical Education . . . . .				Physical Education . . . . .	
			16				17

### SUMMER SESSION (16 WEEKS)

#### *First Term (6 weeks)*

		S.II.
*Eng S55	Representative English Writers .....	3
*Phil S94	History of Modern Philosophy .....	3
*Phil S99	Introduction to Christian Ethics .....	3
N 93	Medical & Surgical Nursing (cont. through summer) .....	3
		<hr/> 6

#### *Second Term (10 weeks)*

		S.H.
N	95 Introduction to the Field of Social Work . . .	3
		3

### THIRD YEAR

<i>First Semester</i>			S.H.	<i>Second Semester</i>			S.H.
N	120	Pediatric & Communi- cable Disease Nursing..	6	N	130	Obstetric Nursing . . . . .	6
†Soc		Family Relationships . . . .	3	†Psych	116	Psychology of Adjustment . . . . .	3
			9				9

\* Choice.

† One-half of class each semester.



## SUMMER SESSION (16 WEEKS)

	S.H.
N180 Public Health Nursing.....	3
N140 Medical & Surgical Nursing including O. R. & Diet Therapy.....	6
	<hr/> 9

## FOURTH YEAR

First Semester	S.H.	Second Semester	S.H.
Elective above 100 level.....	3	N 181 Public Health Nursing cont. with Field Experience	3
N 160 Social Foundations of Nursing Education .....	3		
N 170 Psychiatric Nursing .....	6		
	<hr/> 9		<hr/> 3

## SUMMER SESSION (16 WEEKS)

	S.H.
N190 Advanced Medical & Surgical Nursing with Seminar on Nursing Problems.....	3

In the junior year the class is divided into three sections and rotated in the three major nursing courses.

In the senior year one half of the class are registered in Public Health Nursing each semester; the other half is divided between Psychiatry and Advanced Medical and Surgical Nursing. In the Summer Session the students are registered in Medical and Surgical Nursing (N 190) and Psychiatric Nursing (N 170).

*Description of Courses—Degree Program*

## EDUCATION

**88. EDUCATIONAL PSYCHOLOGY: LEARNING AND MEASUREMENT.**—This course and Education 118 constitute a general introduction to the field of Educational Psychology. This course deals with (1) the psychology of learning, including: the nature of the learning process; general principles or laws of learning; the course of learning and forgetting factors influencing efficiency in learning and retention; and the transfer of training; and (2) measurement, including: the basic concepts in the measurement of intelligence; standardized achievement tests; the extent and significance of individual differences in ability and performance. Opportunity will be afforded for examination and study of a variety of tests of intelligence and achievement. *Either semester.* 3 s.h. (F)

ASSOCIATE PROFESSORS EASLEY AND RUDISILL;  
AND ASSISTANT PROFESSOR PETTY

**18. EDUCATIONAL PSYCHOLOGY: PSYCHOLOGICAL DEVELOPMENT.**—This course traces the psychological development of the individual from infancy to maturity. The principal topics considered are: the interdependence of hereditary and environmental factors in development, the nature of the development process, the establishment of the early basic patterns of behavior, changes and conditions producing these changes throughout childhood and adolescence to maturity, and the origin and treatment of minor behavior disorders. To the degree practicable, students will observe children in typical and atypical situations as a means of securing concrete data on the problems treated in the course. Not open to students who have had Psychology 121 or 126. Prerequisite: three semester hours in psychology or educational psychology. *Either semester.* 3 s.h. (F)

ASSOCIATE PROFESSOR EASLEY AND DR. ADAMS

## ENGLISH

1-2. ENGLISH COMPOSITION.—All freshmen are required to take course 1 and course 2.

Students who fail in English 1 or 2 must repeat the course in the following semester. Students in courses 1 and 2 who fail to make an average of "C" or better are strongly advised to earn credit for an additional course in English composition. 6 s.h. (E & W)

ASSOCIATE PROFESSORS BEVINGTON, BOWMAN, MITCHELL, AND PATTON; ASSISTANT PROFESSORS BEVINGTON, BUDD, HARWELL, JORDAN, POTEAT, SUGDEN, WHITE, AND WILLIAMS; DRs. CHURCH, FRASER, REICHARD, AND SMITH; MESSRS. BOWERS, JOHNSON, LANE, LARKIN, AND SMITH

S55. REPRESENTATIVE WRITERS.—Chaucer's Prologue to *The Canterbury Tales* and at least two tales; Shakespeare's *1 Henry IV* and *King Lear*; the *English Bible* (selections); Milton's *Paradise Lost* (selections), and some of the shorter poems. 2.301. 7:40-9:00. 3 s.h. Mr. SANDERS

## HISTORY

Courses 1-2 or 51-52 or E1-2 or an equivalent is a prerequisite for all other courses; course E1-2 is the prescribed course for students in the College of Engineering; courses 91 and 92 are prerequisite for all 100 and 200 courses in United States history. However, seniors with written permission from the instructor may take courses without the prerequisites. Sophomores who took only one semester of course 1-2 in the freshman year may be admitted to courses 91 and 92, 63, or 67-68, provided they made a grade of B or above on the semester taken. Courses offered for seniors and graduates are limited to twenty-five students; juniors may not elect them without special permission from the Department and the Executive Committee of the Graduate Faculty. Sophomores must obtain permission of the instructor in order to be admitted to courses numbered above 100; students who are not fully qualified sophomores will not be admitted to these courses.

E1-2. THE UNITED STATES IN THE WORLD TODAY.—This course is an introduction to the study of modern history with special reference to the issues in the modern world. Topics selected for emphasis are: the contest between liberty and authority in the modern state; changing economic organization and theory—capitalism and the challenges to it; the problems of peace and war among the states; the changing faiths men live and die by. Beginning about 1500 with the rise of the European dynastic states, the story is pursued in the first semester to approximately 1871, and in the second through the two great world wars. The central theme in both semesters is the expansion of the influence of Western Europe throughout the world, with some attention to the rise of the United States as a world power. 6 s.h. (W & E)

Sophomores and juniors are not admitted to this course. One semester of the course may be counted as a general elective but not as fulfilling the minimum uniform requirements or, except as provided above, as a basis of further work in history. PROFESSOR HAMILTON; ASSOCIATE PROFESSORS FERGUSON, PARKER, AND ROPP;

ASSISTANT PROFESSORS ACOMB AND COLTON; DR. DURDEN

51, 52. HISTORICAL BACKGROUND OF THE WORLD TODAY.—An introductory course for sophomores, juniors, and seniors dealing with the topics indicated in the description of course 1-2. 6 s.h. (W & E)

PROFESSOR CURTISS; ASSOCIATE PROFESSOR ROPP; ASSISTANT PROFESSORS ACOMB AND COLTON; DR. DURDEN; MR. OLIVER

[Not open to freshmen or to students who have had course 1-2.]

## PSYCHOLOGY

116. PSYCHOLOGY OF ADJUSTMENT.—The course is planned to give an adequate understanding of problems of adjustment and of mental hygiene. Lectures and discussions cover an application of the principles and findings of normal and abnormal psychology as these relate to the adjustment of the average individual in our changing society; a survey of the principles of mental hygiene; discussions of current socio-cultural trends significant for individual adjustment. 3 s.h. (E)

ASSISTANT PROFESSOR REICHENBERG-HACKETT

## RELIGION

1. THE ENGLISH BIBLE.—Survey of the contents of the historical and prophetic books of the Old Testament with particular reference to the literary, historical, and religious values. Required of all students majoring in religion and open to others as an elective in the freshman year. 3 s.h. (E & W)

PROFESSOR CRUM; ASSISTANT PROFESSORS BRADLEY AND PRICE;  
DRS. PERRY AND SALES; MR. DANIELS

2. THE ENGLISH BIBLE.—Study of the Psalms, Wisdom Literature, and the literature of the New Testament with special attention given to the literary, historical, and religious values. Required of all students majoring in religion and open to others as an elective in the freshman year. Although Religion 1 is not a prerequisite, it will be an aid to the student to complete 1 before taking 2. 3 s.h. (E & W)

PROFESSOR CRUM; ASSISTANT PROFESSORS BRADLEY, PRICE AND WEITHINGTON;  
DRS. PERRY AND SALES; MR. DANIELS

## SOCIOLOGY

91-92. GENERAL SOCIOLOGY.—An introduction to the scientific study of social life; its origin, evolution and organization as illustrated in the study of a number of concrete social problems. 6 s.h. (E & W)

PROFESSOR JENSEN; ASSOCIATE PROFESSOR SCHETTLER; ASSISTANT  
PROFESSORS ROY AND WHITRIDGE; MR. MCNURLEN

## ZOOLOGY

1. ANIMAL BIOLOGY.—The principles of biology as applied to animals. 4 s.h. (W & E)

ASSOCIATE PROFESSORS HUNTER AND ROBERTS AND STAFF

2. GENERAL ZOOLOGY.—A brief survey of the animal kingdom. Prerequisite: Zoology 1. 4 s.h. (W & E)

ASSOCIATE PROFESSORS BOOKHOUT AND  
HUNTER AND STAFF

## BIOLOGICAL AND PHYSICAL SCIENCE

ANATOMY AND PHYSIOLOGY.—Through the learning experiences in this course, the student gains an understanding and appreciation of the way body structure and body functions serve to maintain and promote health. These understandings and appreciations enable the student to practice and teach good hygiene effectively and to comprehend anatomical and physiological pathology intelligently. As a part of instruction audio-visual aids are used extensively and in conjunction with laboratory work the anatomical structures are demonstrated on dissected human specimens. 6 s.h.

DR. MARKEE, DR. EVERETT, DR. DUKE, MRS. HORNE

CHEMISTRY.—A course in the fundamentals of general inorganic chemistry with particular emphasis on the needs of the student nurse. A brief introduction to organic chemistry. 3 s.h.

DR. TAYLOR

PHYSIOLOGICAL CHEMISTRY.—This course is designed to aid the student in understanding the chemical mechanisms of the human body both in health and in disease. The student also acquires knowledge concerning the chemical basis of diagnosis and therapy. 3 s.h.

DR. TAYLOR

MICROBIOLOGY.—From the learning experiences included in this course the student is enabled to understand and appreciate the role in the prevention of microbial disease. 3 s.h.

DR. POPE

## SOCIAL SCIENCE

N2. INTRODUCTION TO NURSING.—Designed to give the student an appreciation of the historical development of some of the present concepts in nursing. 1 s.h.

ASSISTANT PROFESSOR INGLES

**N160. SOCIAL FOUNDATIONS OF NURSING EDUCATION.**—This course is designed to help the student consider the opportunities open to her, her special aptitudes and abilities, her responsibilities, the fields of work for which she presents potentially the best qualifications and how to get started in a professional career. She is helped to see the place of nursing in the social and economic world of today. Emphasis is placed on the need for cooperation between all professions if satisfactory conditions for the maintenance of health and the prevention of disease are to be realized. 3 s.h.

PROFESSOR WILSON

### NURSING AND ALLIED ARTS

**I. ORIENTATION TO THE HEALTH FIELD.**—An introduction to basic health needs of the community and the agencies and programs designed to meet them. 2 s.h.

ASSISTANT PROFESSOR MASSEY

**61-62. NURSING ARTS.**—A study of the fundamentals of healthful living and their adoption to basic nursing care in the home and in the hospital. Considers the nursing needs of individual patients and provides opportunity to plan and give patient care. 6 s.h.

MRS. BROCK, MISS KNOWLES, MRS. BUTLER, MISS ROSENBAUM

**81. NORMAL NUTRITION AND DIETETICS.**—This course considers the nutritive requirements for individuals in different stages of development, and in different occupations. The methods of supplying foods conforming to the individual nutritional needs are given for varying income levels. Actual foods are compared according to their contribution of specific nutrients, and in relation to their place in the daily diet. 3 s.h.

MISS BARNARD

**92. MEDICAL AND SURGICAL NURSING.**—A study of basic principles underlying nursing care of patients with common medical and surgical conditions. Pharmacology, nutrition in disease, and therapeutics are included. 6 s.h.

ASSISTANT PROFESSOR INGLES, ASSISTANT PROFESSOR RAPPAPORT,  
ASSISTANT PROFESSOR MASSEY, MISS CONRAD, MISS GARMON,  
MISS YEARICK, MEDICAL STAFF

**94. MEDICAL AND SURGICAL NURSING.**—A continuation of Nursing 92. 3 s.h.

**95. INTRODUCTION TO THE FIELD OF SOCIAL WORK.**—An orientation to social work services and how they may be used to meet patients' needs in illness and in rehabilitation. 3 s.h.

MISS WIEN

**120. PEDIATRIC AND COMMUNICABLE DISEASE NURSING.**—Considers basic principles underlying nursing care of infants and children with common diseases and disorders, including communicable diseases; community programs for and teaching opportunities in child health promotion. 6 s.h.

ASSISTANT PROFESSOR MASSEY, MISS HAHOLA

**130. OBSTETRIC NURSING.**—Considers normal and abnormal phases of the reproductive cycle basic to nursing care of the mother and newborn child including the premature infant. The effect of reproduction upon individual and family; community aspects and opportunities for teaching in maternal health promotion. 6 s.h.

ASSISTANT PROFESSOR MASSEY, MISS J. WILSON, MISS KIERNAN

**140. MEDICAL AND SURGICAL NURSING.**—A continuation of Nursing 94. A discussion of principles of surgical aseptic technique basic to nursing practice in the operating room and practice in nutrition in disease is included in this course. 6 s.h.

ASSISTANT PROFESSOR INGLES, ASSISTANT PROFESSOR RAPPAPORT,  
ASSISTANT PROFESSOR MASSEY, MISS CONRAD, MISS CAMPBELL,  
MISS GARMON, MISS YEARICK

170. PSYCHIATRIC NURSING.—Discussion of the principles of psychiatric nursing and the functions and responsibilities of the nurse in the total care of the psychiatric patient with emphasis on mental hygiene and care and rehabilitation of the mentally ill. 6 s.h. ASSISTANT PROFESSOR ZUKOWSKI

180. PUBLIC HEALTH NURSING.—Principles, development, and trends of public health nursing with special consideration to public health nursing in a health department serving a rural community. 3 s.h. ASSISTANT PROFESSOR MASSEY

181. PUBLIC HEALTH NURSING FIELD EXPERIENCE.—Planned, supervised practice in a public health agency in which the nursing service provides a program of family health guidance. 3 s.h. ASSISTANT PROFESSOR MASSEY

190. ADVANCED MEDICAL AND SURGICAL NURSING.—Designed to clarify and broaden understanding of basic principles requisite for nursing care. Emphasis is placed upon application of prior learning to health teaching and guidance of hospital patients. Conferences and seminars. 3 s.h.

ASSISTANT PROFESSOR INGLES, ASSISTANT PROFESSOR MASSEY



# Combined Academic-Professional Programs in Nursing



**S**TUDENTS who have been graduated from the Duke University School of Nursing with an average grade of "C" or better may, upon recommendation by the Dean of the School of Nursing, apply for admission to the Woman's College of Duke University. If accepted she may obtain the degree of Bachelor of Arts or Bachelor of Science from Duke University by fulfilling the requirements for the degree of choice. Forty semester hours of credit toward these degrees are given for the three-year nursing program or toward the degree of Bachelor of Science in Nursing Education for those showing ability in teaching. See page 38.

The program of studies leading to the degree of Bachelor of Arts is as follows:

1. Minimum requirement of the Undergraduate College of Arts and Science:

	S.H.
English 1-2 .....	6
Natural Science .....	8
Language (completion of the third college year) .....	6-18
Religion .....	6
History, Economics or Political Science .....	6
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	32-44

2. Basic nursing program ..... 40
3. At least twelve semester hours in one department other than nursing in courses not primarily open to freshmen..... 12
4. Electives ..... 24-36

In addition to twelve semester hours in one department, the program must include 24 semester hours in courses numbered 100 or above.

A total of 124 semester hours' credit and 124 quality points is required for graduation.

Students who have been graduated from the Duke University School of Nursing may obtain the degree of Bachelor of Science by fulfilling all requirements for that degree. Forty semester hours of credit toward this degree are given for the three-year program in the School of Nursing. The requirements for this degree may be found in the bulletin of the undergraduate colleges.

## *Admission with Advanced Standing in the Woman's College*

Students from the School of Nursing who are admitted to the Woman's College may receive credit for college courses taken prior to their admission to the School of Nursing provided they meet the requirements listed below.

A student enrolling for the Bachelor's degree, who transfers from a junior college or from a four-year college not affiliated with the Southern Association or a similar regional association, is under all circumstances required to continue, for at least one semester in the Woman's College the foreign language she presents for minimum graduation requirements. Note: No foreign language is required for the B.S. in Nursing Education.

Credit for courses in science offered for advanced standing by a student transferring from a junior college or from a four-year college not affiliated with the Southern Association or a similar regional association will be determined by the departments concerned.

Transfer credits are tentatively evaluated pending the completion of two semesters' work in residence. To validate provisional credits the student must earn at least an average of "C" in a normal load of work. Transfer grades of "C" or above are rated at one quality point per credit hour when validated. Credits with grades of D are not acceptable.

The maximum amount of credit acceptable from a junior college is sixty semester hours, exclusive of physical education. No credit is given for work completed by correspondence, and not more than six semester hours credit is allowed for extension courses. Any extension work accepted must be specifically approved by the Dean of the College.

# Division of Nursing Education



## *Advanced Professional Programs*

**A** DIVISION of Nursing Education was established in December, 1944, as an integral part of the Department of Education of Duke University. At the present time, qualified graduate nurses may work toward the degree of Bachelor of Science in Nursing Education.

The primary objective of the degree program for graduate nurses is to prepare qualified individuals for teaching and supervisory positions in schools of nursing and in nursing service agencies. Facilities for instruction include the undergraduate colleges of Duke University, the School of Nursing, the Medical School and Duke Hospital.

### *1. Degree of Bachelor of Science in Nursing Education*

#### ADMISSION

Students who wish to work toward the degree of Bachelor of Science in Nursing Education must apply for admission to the Woman's College of Duke University. To be accepted they must satisfy the following requirements with respect to their high school education:

1. Graduation from an approved secondary school with at least fifteen acceptable units of credit.
2. Twelve units must be in English, foreign language, history and social studies, mathematics and natural science.
3. Three units may be in subjects listed above or in such subjects as art, commercial subjects, household economics, or music.

Students who have satisfactorily completed one or more years of college work in an approved college or university must also fulfill the requirements listed above with respect to high school credit, must present official transcripts of all work done in other institutions, and must have honorable dismissal from each institution previously attended.

Other basic minimum requirements include:

4. Graduation from an approved school of nursing.
5. Satisfactory ratings from individuals, with whom the applicant has had fairly recent contact.

## OUTLINE OF PROGRAM

Credit for 120 semester hours (exclusive of physical education) on which an average grade of at least "C" is made is required for the degree of Bachelor of Science in Nursing Education. The work of the final year must be taken in residence at Duke University. One year of experience as a graduate nurse is required before the degree is awarded. The program of studies leading to this degree must include:

1. Minimum general education requirements (may be satisfied at Duke University or at any accredited college or university).

	S.H.
English 1-2 .....	6
Natural Science .....	8
History, Economics or Political Science .....	6
Sociology .....	3-6
Psychology .....	3-6
Electives .....	12-15
(Literature, art, music, religion, ethics, language)	

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2. Basic Nursing Program ..... 40 (maximum)

In evaluating credit the standing of the School of Nursing, the record of the individual student, and scores on basic nursing achievement tests administered by the Department of Measurement and Guidance of the National League for Nursing to all candidates as soon as they enroll in their first course are taken into consideration.

3. Courses in Education and Nursing Education.

	S.H.
88. Educational Psychology: Learning and Measurement.....	3
118. Educational Psychology: Psychological Development.....	3
84N. Social Foundations of Nursing Education. ....	3
101N. The Curriculum of the School of Nursing.....	3
115N. } Nursing Education—Principles and Practice.....	8
116N. }	
117. Community Nursing—Seminar and Field Trips to Community Agencies .....	3
	23

4. Minimum of fifteen semester hours in one field, such as zoology, chemistry, physics, sociology, or psychology, or in a clinical area.

The following courses in clinical areas are offered at present:

	S.H.
130N. Psychosomatic Nursing .....	4
131N. } Psychiatric Nursing .....	8
132N. }	
133N. Seminar in Psychiatric Nursing.....	3
134N. } Medical and Surgical Nursing.....	8
135N. }	
136N. Seminar in Medical and Surgical Nursing.....	3

Other courses which are offered to graduate nurses are as follows:

192N. Principles and Methods of Teaching in School of Nursing.....	3
193N. Ward Administration and Teaching.....	3
195N. Personnel Work in Schools of Nursing.....	3
124N. Problem in Nursing Care.....	2

## DESCRIPTION OF COURSES

84N. SOCIAL FOUNDATION OF NURSING EDUCATION.—A special section of Education 84, applied to Nursing Education. A survey of major historical, philosophical, and sociological factors which have affected developments in nursing and Nursing Education. The purpose of the course is to give the student a better understanding of the place of nursing in present day society and the responsibilities of the individual nurse toward that society. 3 s.h. ASSISTANT PROFESSOR RAPPAPORT

101N. THE CURRICULUM IN THE SCHOOL OF NURSING.—The general principles of curriculum making and the factors which determine the content and organization of the nursing school curriculum are considered in this course. 3 s.h. ASSISTANT PROFESSOR INGLES

115N-116N. NURSING EDUCATION: PRINCIPLES AND PRACTICE.—A special section of Education 115-116. Principles of teaching applied to the nursing school situations and the planning and evaluation of instruction. Ninety hours of observation and of supervised teaching in the Duke University School of Nursing are required. Four hours of conference, observation, and practice teaching are required each week. Before beginning practice teaching, students must complete thirty hours of observation. (Not open to students who have had course 115-116.) 8 s.h. ASSISTANT PROFESSOR RAPPAPORT

117N. COMMUNITY NURSING SERVICE.—Designed for administrators, teachers, and supervisors in schools of nursing. Emphasis is on the integration of outpatient departments and community social and health agencies into the nursing school curriculum and on the preparation of nurses for community service. 3 s.h. ASSISTANT PROFESSOR MASSEY

120N. NURSING EDUCATION: PROBLEMS IN NURSING CARE.—Each student works on an individual problem designed to improve the nursing care of patients. 3 s.h. ASSISTANT PROFESSOR INGLES, ASSISTANT PROFESSOR ZUKOWSKI

124N. NURSING EDUCATION: TEACHING OF THE NURSING ARTS.—In this course an effort is made to help prospective teachers to integrate the facts and principles of the natural, social, and medical sciences into the teaching of nursing arts. Though major emphasis is placed upon problems which are involved in teaching the first course, the concept of the nursing arts as an integral part of each clinical area is stressed. 3 s.h. ASSISTANT PROFESSOR RAPPAPORT, MISS INGLES

130N. PSYCHOSOMATIC NURSING.—A study of the close relationship between mind and body in all illness and of the techniques of observation and interview both experimental and therapeutic. Lectures, clinics, conferences, discussions, and experience with patients. 4 s.h. ASSISTANT PROFESSOR ZUKOWSKI

131N-132N. PSYCHIATRY AND PSYCHIATRIC NURSING.—An advanced study with special emphasis on personality development and the preventive and therapeutic aspects of psychiatry and psychiatric nursing. In the second semester the management of practical situations of increasing complexity is stressed. Lectures, clinics, conferences, discussions, and experience with patients. 8 s.h. ASSISTANT PROFESSOR ZUKOWSKI, AND MEDICAL STAFF IN PSYCHIATRY

133N. SEMINAR IN PSYCHIATRIC NURSING.—Special study of areas such as behavior problems of children, projective tests, group therapy, mental hygiene clinics, etc. 3 s.h. ASSISTANT PROFESSOR ZUKOWSKI, AND MEDICAL STAFF IN PSYCHIATRY

134N-135N. ADVANCED MEDICAL AND SURGICAL NURSING.—A study of the medical and surgical aspects of selected diseases aimed at giving the student a better comprehension of the total care necessary to bring about the best possible results for patients. Lectures, discussions, case histories, and planned observation and experience with patients. 8 s.h. ASSISTANT PROFESSOR INGLES AND MEDICAL STAFF



136N. SEMINAR IN MEDICAL OR SURGICAL SPECIALTY.—Directed study in a selected medical or surgical specialty. Each student works on a problem of major interest to her. Individual research in the collection of original material. 3 s.h.  
ASSISTANT PROFESSOR INGLES

192N. PRINCIPLES AND METHODS OF TEACHING IN SCHOOLS OF NURSING.—The primary purpose of this course is to help teachers in schools of nursing to understand and to utilize generally accepted principles of learning and to carry out a more effective teaching program in a school of nursing. Instruction is given in the planning of courses, in methods of teaching in classrooms and in hospital divisions, in construction of examinations, and in the utilization of other methods of determining the effectiveness of a teaching program. 3 s.h.  
ASSISTANT PROFESSOR RAPPAPORT

193N. WARD ADMINISTRATION AND TEACHING.—This course is designed to help head nurses better to understand their functions in planning and managing a program on a hospital division which will result in improved care of patients, greater satisfaction for professional and non-professional personnel, and a more adequate teaching program for students and others. 3 s.h.  
ASSISTANT PROFESSOR INGLES

195N. PERSONNEL WORK IN SCHOOLS OF NURSING.—The primary purpose of this course is to help head nurses and supervisors to develop greater understanding of the principles of human behavior and greater ability to apply these principles in working with patients and others on hospital divisions, and in establishing cooperative relationships with other departments of the hospital. 3 s.h.  
ASSISTANT PROFESSOR JOHNSTON

## *II. Degree of Master of Education with a Major in Nursing Education*

(Not offered in 1953-1954)

### ADMISSION

A student who wishes to work toward the degree of Master of Education with a major in Nursing Education must apply for admission to the Graduate School of Duke University. To be eligible for admission as a candidate for this degree she must meet the following requirements:

- (1) Graduation from an approved college or university with an average grade of not less than "B."
- (2) Satisfactory standing on the Graduate Record Examination.
- (3) Satisfactory standing on a test of mental ability.
- (4) Ability to write acceptable English as demonstrated on a test.
- (5) Graduation from an approved school of nursing.
- (6) Satisfactory ratings from three individuals, preferably former teachers and supervisors with whom the individual has had fairly recent contact.

## OUTLINE OF PROGRAM

### Basic Required Courses in Education:

	S.H.
300. Methods of Educational Research.....	3
304. The School as an Institution .....	3
305. The Nature, Function, and Reorganization of the Curriculum.....	3
317. The Psychological Principles of Education.....	3
	12

### Courses in Nursing Education:

310. Organization and Administration of Schools of Nursing.....	4
311. Problems in Personnel Administration in Nursing.....	4
312. Research Problem .....	4
	12

Minor, intra-departmental or extra-departmental.....	6
	30

Candidates for the Master of Education degree must have had two years of experience including administration, supervision, or teaching in a school of nursing or nursing service organization when the degree is granted.

## *Tuition, Fees, and Other Expenses*

### FEES PER SEMESTER

A matriculation fee of \$20.00 is paid at the time of acceptance to Woman's College.

Tuition .....	\$175.00
General Fee (Undergraduate) including health, library and incidental fees .....	75.00
General Fee (Graduate School) .....	60.00
Laboratory Fee (amount depends upon course which is taken)	

### LIVING ARRANGEMENTS

Students may make their own arrangements to live in private homes.

### EMPLOYMENT

A limited number of nurses may be employed at Duke Hospital during the time they are taking courses at Duke University. Nurses who are working full-time (44 hours per week) may take one course each semester. Nurses who wish to reduce hours of work per week to 36, with a corresponding reduction in salary, may take two courses each semester.

For information about employment write to the Director of Nursing Service, Duke Hospital.

# Program in Psychiatric Nursing



A twelve-month program in psychiatric nursing is offered to qualified graduate nurses. The primary objective of this program is to prepare individuals for head nurse positions in psychiatric units of hospitals, child guidance clinics, and related fields. Students who wish to qualify for supervisory or teaching positions in the psychiatric field are advised to complete the program which leads to the degree of Bachelor of Science in Nursing Education.

Facilities for clinical teaching and experience include the psychiatric in-patient unit, the out-patient department, the psychosomatic service of Duke Hospital, child guidance clinics, and the State Hospital in Raleigh, N. C.

Students have approximately 20 hours per week of carefully planned laboratory practice on clinical services, during which time they work closely with patients presenting a wide variety of emotional disturbances. They also have an opportunity to participate in staff conferences and clinics at Duke Hospital and at the State Hospital in Raleigh.

Approximately 30 semester hours of credit toward the Bachelor of Science in Nursing Education degree may be earned during the calendar year.

A limited number of training stipends are available through the U. S. Public Health Service for those nurses who have demonstrated particular interest and aptitude in this field.

Requirements for admission are the same as for all students admitted to the program which leads to the degree of Bachelor of Science in Nursing Education.

## OUTLINE OF PROGRAM (ONE YEAR)

		<i>Credits</i>
Fall Semester		
Educ. 130N	Psychosomatic Nursing .....	4
Educ. 131N	Psychiatric Nursing .....	4
Soc. 101	General Sociology .....	5
Educ. 84N	Social Foundations of Nursing Education.....	3
		<hr/> 16
Winter Semester		
Educ. 132N	Psychiatric Nursing .....	4
Educ. 120N	Problem in Nursing Care .....	2
Educ. 193N	Ward Administration and Teaching .....	3
Psych. 116	Psychology of Adjustment .....	3
		<hr/> 12
Summer		
Educ. 133N	Seminar in Psychiatric Nursing .....	3

# Program in Medical and Surgical Nursing



A twelve-month program in medical and surgical nursing is offered to qualified graduate nurses. The primary objective of this program is to prepare individuals for head nurse positions in medical and surgical units of hospitals. Credit for the entire program applies toward the degree of Bachelor of Science in Nursing Education. Students who are interested in teaching and supervision in medical and surgical nursing are urged to complete all requirements for the degree.

## OUTLINE OF THE PROGRAM

<i>Fall Semester</i>	<i>Credits</i>	<i>Spring Semester</i>	<i>Credits</i>
130N Psychosomatic Nursing ..	4	193N Ward Administration and Teaching .....	3
134N Medical and Surgical Nursing .....	4	135N Medical and Surgical Nursing .....	4
84N Social Foundations of Nursing Education .....	3	117N Community Nursing ....	3
Elective .....	3-6	Elective .....	3-6
	<u>14-17</u>		<u>13-16</u>

## SUMMER SESSION

S136N Seminar in Medical and Surgical Nursing.....	3
S124 Problem in Nursing Care .....	2

The courses in medical and surgical nursing and in psychosomatic nursing will include from four to 16 hours per week of field work in medical and surgical divisions and medical and surgical out-patient clinics of Duke Hospital, and with various community health and social agencies. Students who are interested in a particular medical or surgical specialty (orthopaedic nursing, neurosurgical nursing, etc.) may have added experience in that area during the summer months. For some students experiences in other hospitals may be arranged.

Requirements for admission are the same as for all students admitted to the program which leads to the degree of Bachelor of Science in Nursing Education.

# Clinical Program in Operating Room Nursing



A program in operating room nursing of nine months in length is offered to qualified graduate nurses who are interested in preparing for head nurse positions in an operating room.

## ADMISSION

An individual who is interested in the program in operating room nursing must apply for admission to the Woman's College of Duke University as a *special* student. To be admitted as a special student the following records are required:

1. Transcript of high school or of college record.
2. Transcript of nursing school record.
3. Satisfactory rating from a nursing service administrator or supervisor with whom the applicant has had recent contact.

In addition to the above requirements an applicant must have had a minimum of six months' experience as an operating room nurse.

## OUTLINE OF PROGRAM

### \*Courses in Nursing Education and Related Subjects

	<i>Credits</i>
84N. Social Foundations of Nursing Education .....	3
120. Problem in Nursing Care .....	2
193. Ward Administration and Teaching .....	3
195. Personnel Work in School of Nursing.....	3
Elective .....	3
	<hr/> 14

## CLASSES AND RELATED EXPERIENCE IN OPERATING ROOM NURSING

The course in operating room nursing includes 60 hours of organized class work during the period of nine months and an average of 36 hours each week on duty, of which 18 hours is supervised experience. The class work includes a discussion of the facts and principles of chemistry, bacteriology, anatomy and physiology, underlying preparation for and assistance with surgical operations, both general and special. The history of anesthesia is presented, as well as present day trends and developments in the field.

In the related field work the nurse becomes acquainted with the functions of various departments of the hospital and their relation-

\* Credit toward the degree of B.S. in Nursing Education is given for these courses.



ship to the operating room. She has an opportunity to prepare for and assist with various surgical operations including general surgery, chest surgery, neuro-surgery, orthopaedic surgery, urological surgery, plastic surgery and eye, ear, nose and throat surgery. She is also given an opportunity to assist with administrative and supervisory functions in the operating room, and with planning and conducting a teaching program for students and others.

### FEEES

Each student pays the regular University fees for courses in Nursing Education and related subjects. The fee per credit hour is \$12.00 (1949-50). In addition a matriculation fee of \$5.00 is paid each semester.

### LIVING ARRANGEMENTS

Students who are taking the course in operating room nursing receive full maintenance in return for service to the hospital.

### HEALTH CARE

Each student is required to carry hospitalization insurance to cover the cost of hospitalization during illness.

A sick leave of seven days is given during the nine months' period.

### DATES OF ADMISSION

Students are admitted to the program in operating room nursing at the beginning of each semester.

### CERTIFICATE

At the completion of the nine months' program in operating room nursing the student is granted a certificate.

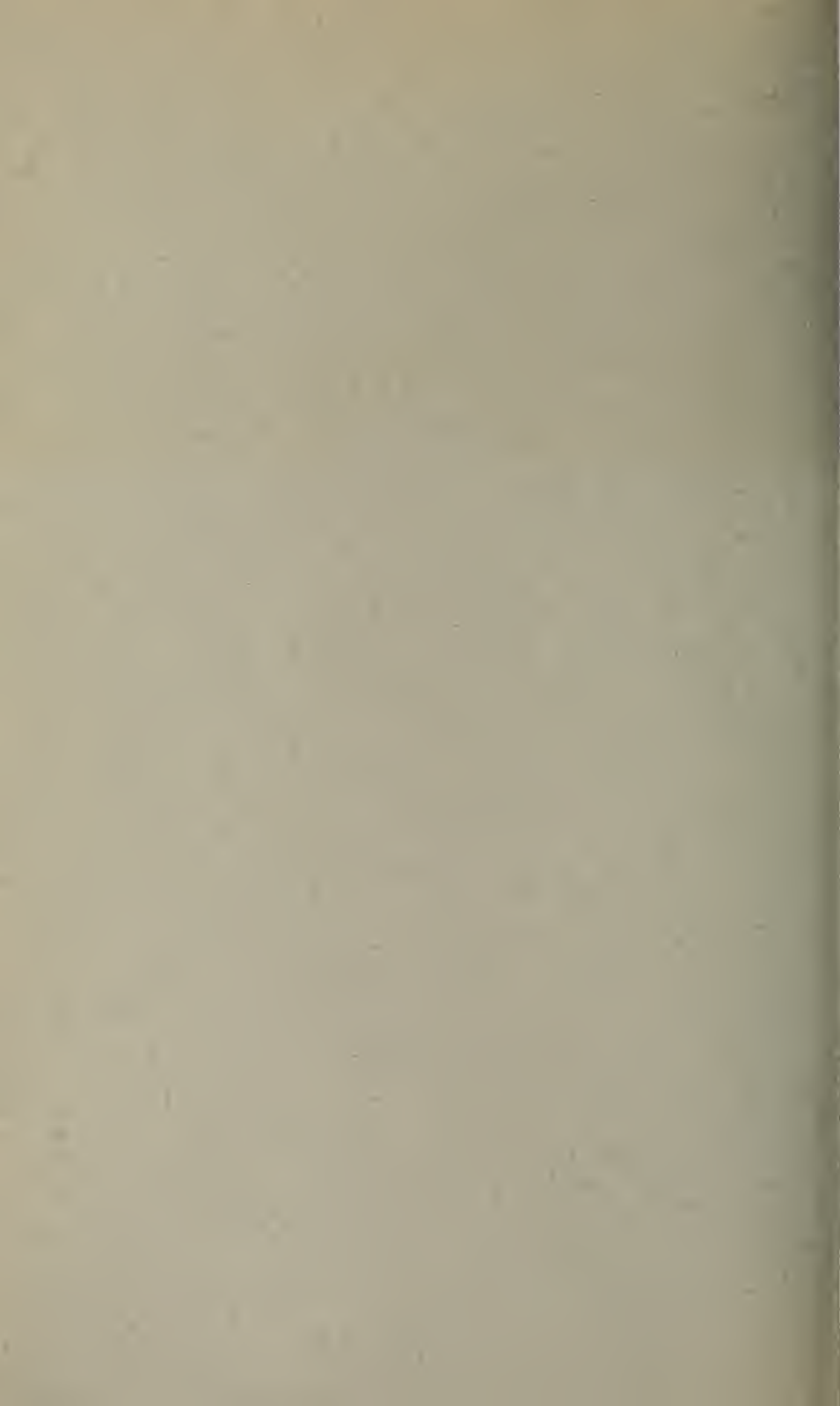
### INFORMATION

For further information about any program write to Director of the Division of Nursing Education, Duke Hospital, Durham, North Carolina. Application for admission to the Woman's College should be made to the Committee on Admissions, College Station, Durham, North Carolina.











**BULLETIN**  
**OF**  
**DUKE UNIVERSITY**



**The Divinity School**

**ANNOUNCEMENTS FOR 1953-1954**

**VOLUME 25**

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# Annual Bulletins

For GENERAL BULLETIN of Duke University, apply to *The Secretary*, Duke University, Durham, N. C.

For BULLETIN OF UNDERGRADUATE INSTRUCTION, apply to *The Secretary*, Duke University, Durham, N. C.

For BULLETIN OF THE COLLEGE OF ENGINEERING, apply to *The Secretary*, Duke University, Durham, N. C.

For BULLETIN OF THE GRADUATE SCHOOL OF ARTS AND SCIENCES, apply to *The Dean of the Graduate School*, Duke University, Durham, N. C.

For BULLETIN OF THE SCHOOL OF FORESTRY, apply to *The Dean of the School of Forestry*, Duke University, Durham, N. C.

For BULLETIN OF THE SCHOOL OF LAW, apply to *The Dean of the School of Law*, Duke University, Durham, N. C.

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For BULLETIN OF THE SCHOOL OF NURSING, apply to *The Dean of the School of Nursing*, Duke University, Durham, N. C.

For BULLETIN OF THE DIVINITY SCHOOL, apply to *The Dean of the Divinity School*, Duke University, Durham, N. C.

For BULLETIN OF THE SUMMER SESSION, apply to *The Director of the Summer Session*, Duke University, Durham, N. C.

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BULLETIN  
OF  
DUKE UNIVERSITY



THE DIVINITY SCHOOL

1952-53

ANNOUNCEMENTS FOR 1953-54

DURHAM, NORTH CAROLINA

1953



ENTRANCE TO THE DIVINITY SCHOOL

# Calendar



1953	
September 14	Monday, 9:00 A.M.—Dormitories open for occupancy. 2:30 P.M.—Orientation program for new students 4:00 P.M.—First regular Faculty meeting.
September 15	Tuesday, 9:00 A.M.-1:00 P.M.—Registration of new students. 2:00 P.M.-5:00 P.M.—Registration of returning and transfer students. 6:30 P.M.—Physical Examinations of all new students, Duke Hospital.
September 16	Wednesday, 9:00 A.M.-5:00 P.M.—Registration of returning and transfer students. 2:00 P.M.-5:00 P.M.—Placement tests for all new students.
September 17	Thursday, 8:30 A.M.—Instruction begins for fall semester. 11:00 A.M.—Formal opening exercises.
September 26	Saturday—Last day for changing courses for fall semester.
November 25	Wednesday, 5:30 P.M.—Thanksgiving Recess begins.
November 30	Monday, 2:00 P.M.—Thanksgiving Recess ends.
December 11	Friday—Founders Day.
December 18	Friday, 5:30 P.M.—Christmas Recess begins.
1954	
January 4	Monday, 2:00 P.M.—Instruction is resumed.
January 12, 13 and 14	Tuesday, Wednesday, and Thursday—Registration of resident students for second semester.
January 18	Monday—Mid-year examinations begin.
January 29	Friday—Mid-year examinations end.
February 1	Monday—Registration for second semester of students not in residence during first semester, last day for matriculation for the spring semester.
February 2	Tuesday, 8:30 A.M.—Second semester begins.
February 8	Monday—Last day for changing courses for second semester.
March 26	Friday, 5:30 P.M.—Spring vacation begins.
April 5	Monday, 2:00 P.M.—Instruction is resumed.
April 14	Wednesday, 7:00 P.M.—English Bible examination in Old Testament.
April 22	Thursday, 7:00 P.M.—English Bible examination in New Testament.
May 24	Monday—Final examinations begin.
June 3	Thursday—Final examinations end.
June 5	Saturday—Commencement begins.
June 6	Sunday, 11:00 A.M.—Commencement Sermon. 7:30 P.M.—Divinity School Closing Exercises.
June 7	Monday—Commencement Address, Graduating Exercises.



# Officers of Administration



## *General Administration*

ARTHUR HOLLIS EDENS, Ph.D., LL.D.  
*President of Duke University*

WILLIAM HANE WANNAMAKER, A.M., LL.D.  
*Vice-Chancellor of the University*

PAUL MAGNUS GROSS, Ph.D.  
*Vice-President in the Educational Division*

CHARLES EDWARD JORDAN, A.B., LL.D.  
*Vice-President in the Division of Public Relations,  
and Secretary of the University*

HERBERT JAMES HERRING, A.M., LL.D.  
*Vice-President in the Division of Student Life*

ALFRED SMITH BROWER, A.B.  
*Business Manager and Comptroller*

CHARLES BLACKWELL MARKHAM, A.M.  
*Treasurer of the University*

## COMMITTEE OF THE BOARD OF TRUSTEES ON THE DIVINITY SCHOOL

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*Dean of the Divinity School*

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*Administrative Assistant and Secretary of the Faculty*

DONN MICHAEL FARRIS, B.D., M.S.  
*Librarian*

ARLEY JOHN WALTON, B.S.L., D.D.  
*Director of Field Work*

## *Staff*

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*Secretary to the Dean*

RUTH C. FAUNCE  
*Receptionist and Secretary*

JOYCE G. LOCKHART, A.B.  
*Assistant in the Library*

\* Died December 31, 1952.

# Faculty



JAMES CANNON, A.M., Th.M., D.D.  
*Dean of the Divinity School and Ivey Professor of the History of  
Religion and Missions*

JAMES FOSTER BARNES, A.M.  
*Lecturer in Church Music*

WALDO BEACH, B.D., Ph.D.  
*Professor of Christian Ethics*

WILLIAM HUGH BROWNLEE, Th.M., Ph.D.  
*Assistant Professor of Old Testament*

KENNETH WILLIS CLARK, B.D., Ph.D.  
*Professor of New Testament*

JAMES T. CLELAND, M.A., S.T.M., D.D.\*  
*Professor of Preaching*

ROBERT E. CUSHMAN, B.D., Ph.D.  
*Professor of Systematic Theology*

WILLIAM DAVID DAVIES, B.D., M.A., D.D.  
*Professor of Biblical Theology*

RUSSELL L. DICKS, B.D., D.D., Litt.D.  
*Associate Professor of Pastoral Care*

FRANKLIN SIMPSON HICKMAN, A.M., S.T.B., Ph.D., D.D.  
*Professor of Psychology of Religion*

EDGAR LAFAYETTE HILLMAN, B.D., D.D.  
*Lecturer in Practical Theology*

WILLIAM ARTHUR KALE, B.D., D.D.  
*Professor of Practical Theology*

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*Administrative Assistant and Secretary of the Faculty*

CREIGHTON LACY, B.D.  
*Assistant Professor of Missions and Social Ethics*

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*Professor Emeritus of Practical Theology*

RAY C. PETRY, Ph.D., LL.D.\*  
*Professor of Church History*

GILBERT THEODORE ROWE, S.T.D., D.D., Litt.D.  
*Professor Emeritus of Christian Doctrine*

EDWIN KELSEY REGEN, B.D., D.D.  
*Lecturer in Practical Theology*

JOHN JESSE RUDIN, II, B.D., Ph.D.  
*Associate Professor of Speech*

THOMAS ANTON SCHAEFER, B.D., Ph.D.  
*Assistant Professor of Historical Theology*

\* On sabbatical leave, spring semester, 1953-54.

## DUKE UNIVERSITY

HILRIE SHELTON SMITH, Ph.D., D.D., Litt.D.  
*Professor of American Religious Thought*

HERSEY EVERETT SPENCE, A.M., B.D., D.D., Litt.D.  
*Professor Emeritus of Religious Education*

WILLIAM FRANKLIN STINESPRING, Ph.D.  
*Professor of Old Testament*

ARLEY JOHN WALTON, B.S.L., D.D.  
*Associate Professor of Practical Theology and Director of Field Work*

JOHN WESLEY CHANDLER, B.D.  
*Teaching Fellow in  
 Philosophy of Religion*

VAN BOGARD DUNN, B.D.  
*Teaching Fellow in Preaching*

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*Assistant in New Testament Greek*

ANDREW DURWOOD FOSTER, B.D.  
*Travelling Fellow in the  
 History and Philosophy of Religion*

McMURRY SMITH RICHEY, B.D.  
*Teaching Fellow in  
 Psychology of Religion*

## *Committees of the Faculty*

*Admissions and Scholarship:* Cannon, Walton, Clark, Petry, Kendall.

*Advisors to Students:* Cannon, Dicks, Walton, Rudin.

*Alumni:* Clark, Myers, Barnes.

*Chapel Services and Spiritual Life:* Cushman, Stinespring, Rudin, Davies, Brownlee.

*Curriculum and Senior Seminars:* Petry, Cannon, Smith, Cleland, Stinespring, Kendall.

*Divinity School Bulletin:* Cleland, Petry, Brownlee, Schafer, Kale, Lacy.

*Divinity School Seminars:* Clark, Cannon, Cushman, Myers, Kale.

*Library:* Stinespring, Cushman, Davies, Lacy, Farris.

*Public Exercises:* Smith, Beach, Cleland, Davies, Brownlee.

*Registration and Schedule:* Kendall, Stinespring, Beach, Rudin, Kale, Schafer.

*Social:* Cleland, Clark, Davies, Kale, Lacy.

### JOINT AND SPECIAL COMMITTEES

*Convocation:* Cannon, Kale, Walton, Rudin.

*James A. Gray Lectures:* Cannon, Cleland, Cushman, Smith, Davies.

*School for Approved Supply Pastors:* Kale, Walton, Cannon.

*Joint Scholarship Committee:* Cannon, Walton, Dozier.

*Joint Summer Session Committee:* Cannon, Petry, Smith, Myers, Kendall, Clyde.

*Joint Phillips Brooks Club Committee:* Schafer, Farris, Rudin, W. C. Bennett, R. J. Wells.

# General Information



## HISTORICAL STATEMENT

THE Indenture of Trust signed on December 11, 1924, by Mr. James B. Duke, which established Duke University, mentioned first among its objects the training of ministers of the Gospel. The Divinity School was, accordingly, the first of the graduate professional schools to be organized. Its work began with the year 1926-27, the formal opening exercises being held on November 9, 1926.

The Reverend Doctor Edmund Davison Soper was the first dean of the Divinity School. He resigned in 1928 to become President of Ohio Wesleyan University, and was succeeded by the Reverend Doctor Elbert Russell, and the latter in turn in 1941 by the Reverend Doctor Paul Neff Garber. In 1944, Dean Garber was elected to the episcopacy of the Methodist Church, and Doctor Harvie Branscomb assumed the duties of the dean's office. In 1946, Dean Branscomb became Chancellor of Vanderbilt University, and in 1947 the Reverend Doctor Paul E. Root was elected dean but died before he could assume the office. The Reverend Doctor Harold A. Bosley became dean in 1947 and resigned in 1950 to become the pastor of the First Methodist Church, Evanston, Ill. The Reverend Doctor James Cannon was appointed Dean of the Divinity School March 1, 1951.

## THE PURPOSE OF THE DIVINITY SCHOOL

The primary purpose of the Divinity School is to provide training for individuals planning to enter the Christian ministry. This includes not only prospective ministers in local churches, but also those preparing themselves to be missionaries at home and abroad, directors of religious education, teachers of religion, chaplains, and social workers. Vital to all of these forms of service is a full understanding of the beginnings, content, and history of the Christian faith and its special pertinence for the spiritual needs of the modern world. Studies of a broad and thorough character directed toward such an understanding constitute the center of the curriculum of the Divinity School and are regarded as the basic training for all prospective Christian workers. Specific training in the skills required of local ministers and of leaders in the work of religious education are also provided. As funds become available for the purpose and as needs appear, additional training in specialized skills and areas of knowledge will be added to the curriculum.

Though bound by ties of history and obligation to the Methodist

Church, the Divinity School is ecumenical in its interests and outlook. Its faculty is limited to no one denomination, but draws upon the resources of them all. Students of the several denominations are admitted on the same basis. The Divinity School conceives its task to be one of broad service to the Church of Christ in all of its forms.

### THE RELATION OF THE DIVINITY SCHOOL TO DUKE UNIVERSITY

The Divinity School is an integral unit of the University and shares fully in its activities, privileges and responsibilities. The Sunday services in the University Chapel give Divinity School students an opportunity to hear each year a number of leading preachers of the country. The University Libraries make easily accessible a rich collection of approximately a million volumes. Selected courses in the Graduate School of Arts and Sciences and in the professional schools are open to Divinity School students without payment of additional fees. The general cultural and recreational resources of the University are available to them on the same basis as to other students.

### LIBRARY RESOURCES

The Divinity School has its own library containing over sixty-two thousand volumes. It is rich in complete files of the more important religious journals and periodicals, in source materials, particularly for the study of medieval and American church history, Judaism, missions and the history of religion, and in facsimiles of the more important manuscripts of the New Testament. Among the most treasured possessions of the Library are seventeen Greek manuscripts of the eleventh to seventeenth centuries. Twelve are Greek New Testament, of which one is a magnificent manuscript of the thirteenth or fourteenth century, containing the entire text of the New Testament; four are liturgical manuscripts containing material valuable for studies in the New Testament and church history.

The combined libraries of the University contain over a million volumes. The General Library of the University is connected by a corridor with the Divinity School Building. It contains seven hundred thousand volumes and receives the current issues of several thousand periodicals. The General Library contains also a catalogue of the library of the University of North Carolina located at Chapel Hill, twelve miles away, and a system of exchange operates between the two libraries so that books may be secured from that library also within a few hours.

The Henry Harrison Jordan Loan Library was endowed in 1947 by the children of the late Reverend Henry Harrison Jordan for the purpose of providing ministers in the field with the best of current reli-



gious literature. This collection was an outgrowth of the Duke Divinity School Loan Library established in 1944.

### RELIGIOUS AND SOCIAL LIFE

One of the most important aspects of a program of training for religious service is the development of a warm and discriminating spiritual experience. The center of the corporate life of the Divinity School is its own place of worship, York Chapel. Regular chapel services are held at which all students are expected to be present. Services are led by members of the faculty, by visiting ministers, and by members of the student body. Ordination and other special services are held upon occasion. On each Sunday morning services are held in the University Chapel.

In 1952 the Doris Duke Foundation gave funds for the purchase and installation of a pipe organ in York Chapel.

The student body of the Divinity School is united by a strong sense of fellowship and common interest. Student committees organize and supervise social projects and missions of preaching, jail visitation, and related enterprises. Opportunities for occasional preaching are always available.

### PUBLIC LECTURES

The Divinity School presents several public lectures annually. The lectures for 1952-53 were Dr. Robert E. Cushman, Duke Divinity School; Dr. Robert T. Handy, Union Theological Seminary, New York; Dr. John McKay, Princeton Theological Seminary; Bishop Richard C. Raines, of the Methodist Church; the Reverend Cecil W. Robbins, of the *North Carolina Christian Advocate*; Dr. Norman W. Porteous, of the University of Edinburgh; class lecturers were Dr. Mary Alice Jones, of the Methodist Board of Education and Mrs. W. V. Landrum of the Woman's Society of Christian Service. Speakers at the annual Missionary Emphasis Week were Dr. Karl Quimby, Dr. M. O. Williams, Dr. George Way Harley, Dr. Frederick Shippey, and the Reverend Creighton Lacy, all of the Methodist Board of Missions.

### THE DIVINITY SCHOOL LIBRARY LECTURES

In 1948 the Duke Divinity School Library Lectures were established by the Reverend George Brinkmann Ehlhardt for the purpose of bringing to the Divinity School a succession of great religious leaders. The following lecturers have appeared:

1948: The Reverend Doctor William Warren Sweet. 1949: The Reverend Doctor George Dunbar Kilpatrick. 1949: The Reverend Doctor Wilhelm Pauck. 1950: The Reverend Doctor John Cecil Trever. (This lecture was given in connection with the exhibition

of three ancient Hebrew scrolls lent by His Eminence, Mar Athanasius Yeshue Samuel, Metropolitan and Archbishop of Jerusalem and Trans-Jordan.) 1951: Bishop Paul Neff Garber. 1953: Dr. Roland H. Bainton.

### THE JAMES A. GRAY LECTURES

The James A. Gray Lectures were established in 1950, and the first series was given by Dr. Ralph W. Sockman, pastor of Christ Church (Methodist) of New York, during The Christian Convocation. The second series of these lectures was given at the 1951 Convocation by Dr. Paul E. Scherer of Union Theological Seminary, New York. The third series was given at the Convocation of 1952 by Dr. Liston Pope, Dean of Yale Divinity School. Dr. Charles W. Gilkey, Dean Emeritus of the Chapel of the University of Chicago, delivered the fourth series at the 1953 Convocation.

### THE CHRISTIAN CONVOCATION

The Christian Convocation of 1953 was held on the Duke campus from June 2-5. The Convocation, under the joint sponsorship of the Duke Divinity School, The North Carolina Pastors' School, The North Carolina Rural Church Institute, and The Department of In-Service Training of the Board of Education of the Methodist Church, brought to the campus an outstanding group of religious leaders as lecturers and teachers. Bishop Fred Pierce Corson was Convocation Preacher at the 1953 Convocation.

### COURSES OF STUDY OFFERED BY THE DIVINITY SCHOOL

The Divinity School offers two courses of study. The basic course is that which leads to the degree of Bachelor of Divinity. This is a three-year course and is recommended to all those preparing themselves for the work of the regular pastoral ministry. Students who hold pastoral charges, or other remunerative work requiring any substantial time apart from their studies, may carry only reduced schedules of work, and, in most cases, unless work is taken in the Duke University Summer Session, will spend four years in completion of the requirements for the B.D. degree.

The Divinity School offers also a course of study leading to the degree of Master of Religious Education. This course is designed for individuals who wish to become directors or to take other specialized positions in the work of Christian Education. The course does not provide a general preparation for the work of the regular ministry and cannot serve as a substitute for it. No exchange of credits between the two courses is permitted, nor can departmental courses taken be credited toward more than one degree. Only a limited number of candidates for the Master of Religious Education degree will be accepted annually.

The requirements for each of these degrees are stated on pages 16 through 24 in this catalogue.

### COURSES OF STUDY IN RELIGION OFFERED BY THE GRADUATE SCHOOLS OF ARTS AND SCIENCES

Students who desire to pursue work in religion beyond that for the Bachelor of Divinity degree should register in the Graduate School of Arts and Sciences, through which the degrees of Master of Arts and Doctor of Philosophy in Religion may be obtained. This advanced work is administered through the Department of Religion of the Graduate School and is available to qualified persons of all denominations on an equal basis. Study and research may be pursued in three fields: (1) Biblical Studies; (2) Studies in Church History; and (3) Studies in Christian Thought. A list of courses approved by the Graduate Council for work in these fields, together with general requirements for admission to the Graduate School, may be found in the *Bulletin of the Graduate School*. This Bulletin is available on application to Dean Charles S. Sydnor, The Graduate School of Arts and Sciences, Duke University.

A limited number of University Scholarships and Fellowships, among which are four Gurney Harriss Kearns Fellowships of \$1,200 each, may be obtained by exceptionally qualified students. Applications for these must be submitted to Dean Sydnor on University forms not later than March 1 of each year.

Inquiries concerning specific requirements of the Department of Religion in the Graduate School should be addressed to Professor H. Shelton Smith, Director of Graduate Studies in Religion.

### FACILITIES FOR ADVANCED STUDY IN THE AMERICAN SCHOOLS OF ORIENTAL RESEARCH

The Divinity School of Duke University is one of the supporting members of the American Schools of Oriental Research. Accordingly, students in the Divinity School have the privilege of attending the American School in Jerusalem or the one in Bagdad without charge for tuition. They may also compete for the financial aids which are offered annually by the Schools. These consist of four fellowships, the stipends depending upon available funds.

### DIVINITY SCHOOL SEMINARS

The Divinity School, under provision of the James A. Gray fund, conducts each year two extension seminars providing two-day study courses for ministers. In 1952-53 seminars were conducted at West Market Street Methodist Church, Greensboro, N. C. and Queen Street Methodist Church, Kinston, N. C. Lecturers were Dr. Lynn Harold Hough and Dr. James T. Cleland.

### SCHOOL FOR APPROVED SUPPLY PASTORS

In cooperation with the Department of In-Service Training of the Board of Education and the Southeastern Jurisdictional Conference of the Methodist Church, the Divinity School conducts a School for Approved Supply Pastors of the Methodist Church. The Congregational Christian Church also cooperates in this school. The school for 1953 is scheduled for June 15-July 1.

### STUDENT GOVERNMENT ASSOCIATION

Each student of the Divinity School upon enrollment becomes a member of the Student Government Association. Four officers are elected by the student body annually in April to serve for the following year. These officers, the President, Vice-President, Secretary, and Treasurer, along with the Dean of the Divinity School, serve as the Executive Committee, and the committee chairmen constitute the Student Council which meets in monthly session to review and coordinate the programs of the several committees. It is desired that all students contribute to the corporate life of the School through active participation in the work of the committees. The Association operates on the basis of a unified budget, each student contributing to its support dues in the amount of \$5.00 per year, payable at the time of fall registration; \$2.50 at spring registration for students who enter at that time.

# Admission and Requirements for Degrees



## *Requirements for Admission*

THE Divinity School is a fully accredited member of the American Association of Theological Schools, and is one of the ten accredited seminaries of the Methodist Church. Candidates for admission must hold the degree of A.B., or its equivalent, based upon four years of work beyond secondary education, in a college which is approved by one of the regional accrediting bodies, and their college records must be such as to indicate their ability to carry on graduate professional studies. They will be admitted without examination on presentation of an official transcript of college and all other academic credits which they may have secured.

Applications may be rejected where transcripts show a considerable number of low grades even though the applicant may have eventually received a degree based upon a bare "C" average, especially where the applicant has required longer than the normal eight semesters of college work.

The applications of students from foreign countries will be considered, each on its own merits, the general principle being that a training equivalent to that of a baccalaureate degree from an accredited American college must have been secured. Women will be admitted on the same basis as men.

The Divinity School accepts students who desire to transfer from other accredited theological schools on the basis of transcripts of their work and honorable dismissal. However, all transfer students will be expected to meet the full requirements of the Divinity School and should recognize the fact that there may be loss of time in conforming to these requirements. Students who have more than thirty semester hours of credit elsewhere are not encouraged to transfer because the required courses for the first and second years are scheduled on the same hours each week; it will usually require at least two full academic years of two semesters each to meet the Divinity School requirements regardless of the amount of credit transferred. Credits will be formally accepted only after the student has spent one semester in the Duke Divinity School.

In addition to an adequate academic preparation, applicants must



satisfy the Faculty as to their Christian character and purpose. A formal application blank may be secured from the office of the Divinity School. This must be filled out and returned by all candidates for admission. Application for admission should be made as soon as possible after the beginning of the applicant's last semester of college work. Applications received after April 1 cannot be assured of admission or financial aid for the ensuing academic year.

All persons admitted to the Divinity School are required to report to the Student Health Service, Duke Hospital, for physical examination on days and at hours specified at the time of matriculation. They are also required to take certain tests administered by the Bureau of Testing and Guidance.

Persons who do not matriculate at the time for which they were originally admitted are required to secure written approval for later matriculation.

The number of applications for admission to the School is considerably larger than the number of vacancies. In view of this fact, applicants are required on notification of admission to signify their acceptance within two weeks, and to pay an admission fee of \$15.00. (Make check payable to Treasurer of Duke University and send to the Office of the Dean of the Divinity School.) This fee is applied to the regular first-term bill if the student matriculates; if he fails to do so, the fee is forfeited.

Under the terms of the Selective Service Act, as it now stands, pre-enrollment for later formal admission may be granted to persons who meet the Divinity School standards and requirements for admission. Applications for pre-enrollment may be addressed to the Office of the Dean. Pre-enrolled students must send transcripts of each year's college work by June 15th of each year in which they are pre-enrolled. Pre-enrollment does not guarantee formal admission, and a person who has been pre-enrolled for any length of time must send a transcript of work by April 1 of the year in which admission is sought for the ensuing academic year. The admission fee of \$15.00 is due within two weeks of receipt of notice of formal admission.

### ADMISSION ON PROBATION

1. Applicants for admission who are graduates of non-accredited colleges will be considered on their merits, but only those who give evidence of special promise will be admitted. Specifically, such applicants must show that they have attained a superior average (approximately "B") for a four-year college course.

Admission of such persons will, in every case, be *on probation*.

2. Applicants for admission who are graduates of accredited colleges but whose college transcripts do not fully meet Divinity School

standards may be admitted *on probation* if their recommendations justify consideration.

Probation means:

a. Students who, during the first year of Divinity School work (thirty semester hours), maintain a consistently low average, including one or more failures, will be required to withdraw from the school.

b. Students admitted on probation may carry only limited schedules of work, the amount to be determined by the Dean.

c. In the case of a student admitted on probation, no credit will be granted for any course in which, during the first year's work (thirty semester hours), a grade of less than "C" (see catalogue section on "grading system") is recorded, unless the student's entire average in the year during which a "D" grade is received is "C" or better.

d. When the student has been admitted on probation, and is subsequently found to be deficient in the essential requisites of any given area of the "Pre-Seminary Curriculum" (see next section of catalogue), the Divinity School Faculty reserves the right to direct that the student make up such deficiencies by additional courses of study taken in other schools of Duke University in order to qualify for either the B.D. or M.R.E. degree, but without credit for such courses toward those degrees.

### PRE-SEMINARY CURRICULUM

The Divinity School, in substantial agreement with the standards of the American Association of Theological Schools, recommends that prospective candidates for admission keep in mind the desirability of including the following in their undergraduate curriculum:

It is suggested that a student should acquire a total of 90 semester hours or complete approximately three-fourths of his college work in the areas listed below. No work done towards a first college degree may be used towards a Divinity School degree.

<i>Basal Fields</i>	<i>Semester</i>	<i>Sem. Hours</i>
English	6	12-16
Literature, Composition and Speech		
Philosophy	3	6-12
At least two of the following:		
Introduction to philosophy, history of philosophy, ethics, logic		
Bible or Religion	2	4-6
History	3	6-12
Psychology	1	2-3
A foreign language	4	12-16
Greek and Hebrew are especially recommended.		
Natural sciences	2	4-6
Physical or biological		
Social sciences	2	4-6

At least two of the following:

Economics, sociology, government or political science, social psychology, education.

Concentration of work, or "majoring," is a common practice in colleges. For such concentration or major, a constructive sequence based upon any one, two, or three of the above fields of study would lead up naturally to a theological course.

Of the various possible areas of concentration, where areas of concentration are required, a major in English, philosophy, or history is regarded to be the most desirable.

## *Requirements for the Degree of Bachelor of Divinity*

The requirements for the degree of Bachelor of Divinity are the following:

Completion of ninety semester hours of course work, including the required courses of the core curriculum, listed on page 17.

The selection, not later than the end of the middle year, of one of the Vocational Groups, and completion of the special requirements of the Group chosen, including satisfactory completion of the work of one Senior Seminar.

Demonstration of a detailed knowledge of the contents of the narrative portions of the English Bible. Examinations for this purpose in Old and New Testament are given each spring. (See Calendar for exact dates.)

Students who show deficiencies in English will be required to take special training in addition to meeting the other requirements for the degree. A degree may be withheld on the grounds of English deficiency only.

The degree of Bachelor of Divinity will not be conferred on a student transferring from another institution until he has spent at least two semesters in residence in the Divinity School. This is defined as the completion of thirty semester hours of work, not more than six hours of which may be taken in the Duke University Summer Session.

By special permission a student who has begun his work in Duke Divinity School as a candidate for the B.D. degree may be given credit for not more than 30 semester hours of work taken in another seminary on the approved list of the American Association of Theological Schools. Except in unusual cases, request for such credits must be approved prior to the beginning of work at the other institution. In every such case, however, the final 15 hours of class credit presented for graduation must be done at Duke and must include satisfactory completion of one of the Senior Seminars. No such student will be relieved of any of the requirements for graduation specified in the catalogue of the Duke Divinity School.

Unless all the work offered for the B.D. degree is completed within a period of nine years from the date of beginning, the student will be required to make formal application for re-admission and re-evaluation of his credits in the light of the then-existing curriculum of the Divinity School. Except in unusual cases, work of a fragmentary character taken over a long period of years, or work taken many years before a student is admitted to the Duke Divinity School, will not be accepted for credit toward the B.D. degree.

Not over 24 semester hours of Summer Session work may be credited toward the degree of Bachelor of Divinity.

In view of the fact that enrollment must be limited, persons who have already received the B.D. degree from Duke or elsewhere will not be admitted to the Divinity School except as special students in the Summer Session.

## *Distribution of Courses by Years*

### FIRST (JUNIOR) YEAR

<i>First Semester</i>	<i>Semester Hours</i>	<i>Second Semester</i>	<i>Semester Hours</i>
11. Introduction to the Old Testament	4	18. Early Christian Life and Literature	4
13. History of Pre-Reformation Church	4	20. Introduction to Christian Theology	4
15. Living Religions	3	22. Psychology of Religion	3
17. Effective Speaking	2	English Bible Examination	0
*Free Elective	2 or 3	*Free Elective	2 to 4
	<u>15 or 16†</u>	Field Work Seminar (For those doing field work)	1
			<u>14 to 16†</u>

### SECOND (MIDDLE) YEAR

<i>First Semester</i>	<i>Semester Hours</i>	<i>Second Semester</i>	<i>Semester Hours</i>
19. Introduction to New Testament Theology	2	12. Psalms, Wisdom Literature, etc.	2
21. Introduction to the History of Christian Doctrine	2	14. Reformation and Post-Reformation Church History	2
23. Practical Theology	2	24. Missions	2
25. Religious Education	2	26. Pastoral Care	2
27. Christian Ethics	3	28. Movements in American Religious Thought	3
29. Sermon Construction—Theory	2	30. Sermon Construction—Practice	2
*Free Elective	2 or 3	*Free Elective	2 or 3
	<u>15 or 16†</u>		<u>15 or 16†</u>

\* Language counts as free elective.

† A student who secures credit for 15 s.h. each semester will be in line for graduation at the end of three academic years.

## *Schedule of the Core Curriculum*

Not over three additional hours may be scheduled in any one semester.

### FIRST YEAR—FIRST SEMESTER

<i>Hour</i>	<i>Monday</i>	<i>Tuesday</i>	<i>Wednesday</i>	<i>Thursday</i>	<i>Friday</i>	<i>Saturday</i>
8:30						
9:30		C. H. 13	C. H. 13	C. H. 13	C. H. 13	
10:30		Chapel	Chapel	Chapel	Chapel	
11:00		H. R. 15	Assembly	H. R. 15	H. R. 15	
12:00		Speech 17†		Speech 17†		
2:00		O. T. 11	O. T. 11	O. T. 11	O. T. 11	

†Additional sections of Speech are available.

### FIRST YEAR—SECOND SEMESTER

<i>Hour</i>	<i>Monday</i>	<i>Tuesday</i>	<i>Wednesday</i>	<i>Thursday</i>	<i>Friday</i>	<i>Saturday</i>
8:30						
9:30		Theol. 20	Theol. 20	Theol. 20	Theol. 20	
10:30		Chapel	Chapel	Chapel	Chapel	
11:00		Psy. Rel. 22	Assembly	Psy. Rel. 22	Psy. Rel. 22	
12:00		*Pract. Theol. 144	*Pract. Theol. 142			
2:00		N. T. 18	N. T. 18	N. T. 18	N. T. 18	

\*Students doing any kind of field work will choose one of these seminars.



## SECOND YEAR—FIRST SEMESTER

<i>Hour</i>	<i>Monday</i>	<i>Tuesday</i>	<i>Wednesday</i>	<i>Thursday</i>	<i>Friday</i>	<i>Saturday</i>
8:30						
9:30		R. E. 25	P. T. 23	R. E. 25	P. T. 23	
10:30		Chapel	Chapel	Chapel	Chapel	
11:00		Ch. Eth. 27	Assembly	Ch. Eth. 27	Ch. Eth. 27	
12:00		Preaching 29		Preaching 29		
2:00		N. T. 19	H. T. 21	N. T. 19	H. T. 21	

## SECOND YEAR—SECOND SEMESTER

<i>Hour</i>	<i>Monday</i>	<i>Tuesday</i>	<i>Wednesday</i>	<i>Thursday</i>	<i>Friday</i>	<i>Saturday</i>
8:30						
9:30		Missions 24	Pastoral Care 26	Missions 24	Pastoral Care 26	
10:30		Chapel	Chapel	Chapel	Chapel	
11:00		Am. Rel. Th. 28	Assembly	Am. Rel. Th. 28	Am. Rel. Th. 28	
12:00		Preaching 30		Preaching 30		
2:00		O. T. 12	C. H. 14	O. T. 12	C. H. 14	

## THIRD (SENIOR) YEAR

Vocational Groups. (One of these to be chosen by every B.D. candidate not later than the end of the Middle Year. Core curriculum courses do not count for elective credit.)

## I. THE PREACHING MINISTRY AND PASTORAL SERVICE.

During the senior year, students electing Vocational Group I must take one course from each of the following fields, except in the case of those students who have previously elected these courses during the first two years:

Religious Education	Speech (for those found deficient in
Practical Theology	Speech and Preaching)
Pastoral Care	Philosophy of Religion (See P.R. 119 and 121)

The student will also elect one Senior Seminar; he may not take more than one without special permission of the Dean. The seminar will carry credit of two semester hours. Free electives in sufficient amount to complete 90 hours for graduation will be taken.

## II. APPLIED CHRISTIANITY.

A. Religious Education. During the senior year, students electing Vocational Group IIA must take the following courses, except in the case of those students who have previously elected these courses during the first two years:

Religious Education and Practical Theology (3 courses distributed between the two departments).

Psychology of Religion (1 course).

The student will also elect one Senior Seminar; he may not take more than one without special permission of the Dean. The seminar will carry credit of two semester hours. Free electives in sufficient amount to complete 90 hours for graduation will be taken.

(Students planning to teach the Bible in public schools should elect some work in Bible.)

B. Missions. (To be developed.)

C. Chaplaincy: Hospital, Military, and other. The student should plan his program so as to include Pastoral Care 170, 174, 177 and either 171 or 172. During the senior year the student will take any of these courses not previously taken, and one course in either Philosophy of Religion or an advanced course in Psychology of Religion not previously taken.

## III. TEACHING AND RESEARCH IN RELIGION.

During the senior year, those choosing Vocational Group III must take one course from each of five fields drawn from the following ten:

American Religious Thought	Psychology of Religion
Bible (may be language)	Religious Education
Christian Ethics	Christian Theology
Church History	Biblical Theology (O.T. 101, 301, 310, N.T. 116, 311, 312, 319)
Historical Theology	History of Religion

The student will also elect one Senior Seminar; he may not take more than one without special permission of the Dean. The seminar will carry credit of two semester hours. Free electives in sufficient amount to complete 90 hours for graduation will be taken.

## ADMINISTERING THE CURRICULUM

For the administration of the curriculum the following regulations have been adopted:

Full-time students will take the core required courses as specified for the respective semesters, being limited to the amount of free elec-

tive work indicated in each term. The only exceptions are as specified in the provision for languages.

Since the four-day-a-week schedule of required courses and the free week-ends have been planned with special reference to the needs of students holding pastoral charges, such students are permitted, but not required, to carry the total of hours of the core requirements for the first four semesters, but free electives may not be taken until all the core requirements have been fulfilled. The amount of work allowed in the last two semesters will be governed by the same principle. Such students may not carry more than the core curriculum or its equivalent without special permission of the Dean. A student who does not do creditable work will be required to reduce his schedule. The schedules of all students are subject to the approval of the Dean.

The status of "special student" may not be granted simply to permit avoidance of the schedule of core required courses. Every request for this classification will be carefully investigated and approval voted in each case by the Curriculum Committee in the cases of students already admitted to the Divinity School, and by the Admissions Committee in the case of applicants for admission as "special students."

A fee of \$10.00 is charged for auditing any course except where a student is already paying regular University fees. Permission to audit requires the approval of the Dean and the instructor concerned.

Students working under or assisted by the Duke Endowment, or by Divinity School funds, are required to take one of the Field Work seminars. This work will be taken in the second semester of the first year. Unless taken at that spot, such seminars will be charged against the "free elective" allowance of later terms.

For a student taking both Greek and Hebrew, the Greek may be continued in the second year by postponing one or both of the 2-hour core courses in Old and New Testament. In such cases, the Hebrew will be the free elective in that year.

A part-time student who desires to begin the study of Greek in the first year may postpone the core required course in Old or New Testament.

Suitable entry will be made on the permanent record of any student who is granted permission to deviate from the core requirements in the matter of language.

It is the responsibility of each student to see that he meets all requirements for graduation, and to take his courses in proper sequence. He is also responsible for seeing that any special permission granted him to deviate from the normal program is properly recorded in his personal file. Members of the Faculty have no authority to

grant deviations unless these are stated in a letter from the instructor in question to the Dean and approved by him; these to be added to the student's permanent record.

### GRADING SYSTEM

The grading system of the Divinity School employs the letters A, B, C, D, and F, which have been defined as follows: A = Excellent; B = Good; C = Acceptable; D = Poor; F = Failure; WP = Withdrew Passing; WF = Withdrew Failing; and Inc. = Incomplete. (See below.) No percentage equivalents are stated. A student is expected to maintain an average of C.

The Faculty has voted that in the average course of considerable size, especially core curriculum courses, the total of A and B grades should not run above  $33\frac{1}{3}\%$ . In all courses where the instructor considers attendance a necessary part of the work of the course, a student may not receive a grade of over C if his absences total 12% of the regular class periods, and if the absences total 24% of the class periods he may not receive credit for the course.

Grades of Incomplete received at the end of the fall semester must be removed by the completion of the work of the course not later than March 15. Grades of Incomplete received at the end of the spring semester must be removed by October 1. If the work of the course is not completed by these dates, the grades shall be recorded as "F."

No student shall be permitted to drop a course after the expiration of one-third of the period of instruction of the course without incurring failure, except for causes adjudged by the Dean to be beyond the student's control.

### *Requirements for the Degree of Master of Religious Education*

The course of study leading to this degree is designed for individuals desiring to engage in various forms of Christian Education.

Candidates for this degree must hold the degree of A.B. (or its equivalent), based upon four years of work beyond secondary education, in a college which is approved by one of the regional accrediting bodies, and with academic and personal records which afford promise of competence in this area of service. The course of study will be especially useful for individuals who have had one or more years of experience in Christian Education and desire further training. Candidates for this degree will be limited in number, and individuals interested are urged to apply for admission well in advance of the opening of the academic year. All work offered for this degree, whether in the regular year or in summer sessions, must be completed within a period of six years from the date of beginning.

## PREREQUISITES

The following prerequisite studies must have been taken by the candidate prior to his admission to Duke Divinity School or must be secured, without credit toward the M.R.E. degree, after being admitted:

General Psychology	3 s.h.
Sociology	3 sh..
Education	3 s.h.

## GENERAL REQUIREMENTS

Sixty semester hours of graduate-professional work are required for graduation. Not more than twelve semester hours of this work may be taken in approved summer sessions, and not more than eighteen semester hours outside of Duke Divinity School.

No credits are allowed for undergraduate courses. However, in approving plans of study leading to this degree, consideration will be given to earlier work taken in the fields of Biblical studies and Religious Education provided such courses were taken in the Junior and Senior years in accredited four-year colleges. Also where candidates for the degree have been engaged professionally as Directors of Christian Education for not less than twelve months prior to entering the Divinity School the amount of Field Work may, upon recommendation of the Director of the M.R.E. program and the approval of the Dean, be reduced to not less than six hours of Project or Directed Field Work during the period required for completing requirements for the degree.

A student who secures credit for 15 semester hours each semester will be in line for graduation at the end of two academic years. The amount of work allowed in each semester may not exceed that permitted in the B.D. curriculum.

## COURSE REQUIREMENTS

(Not to include any courses numbered above 199, except in Biblical Studies.)

Not less than eight semester hours of Divinity School work in Biblical Studies (including both Old and New Testaments) for all M.R.E. candidates, and up to fourteen semester hours of such work for candidates adjudged to be insufficiently prepared in Biblical Studies.

Not less than nine nor more than fifteen semester hours in the field of Christian Education, to be distributed as follows: not less than six nor more than twelve semester hours in courses in Religious Education, and not less than three semester hours in Psychology of Religion (or more if adjudged necessary by the Director of the M.R.E. program).

Not less than four nor more than seven semester hours, taken in



two fields, chosen from the offerings in Christian Theology, Christian Ethics, and American Religious Thought.

Not less than four nor more than seven semester hours, taken in two fields, chosen from the offerings in Church History, Historical Theology, and Philosophy of Religion.

Not less than four nor more than five semester hours, taken in two fields, chosen from the offerings in History of Religion and Missions, Practical Theology, and Pastoral Care.

Not less than two nor more than three semester hours, taken in one field, chosen from the offerings in Speech, Public Worship, and Church Music.

Project or Directed Field Work: Not less than six nor more than twelve semester hours.

Free electives in sufficient amount to complete sixty hours for graduation will be taken, if necessary.

Senior Seminars: The Senior Seminars of the B.D. curriculum are open to M.R.E. candidates only in the second year, by special permission of the Dean.

### *Conduct and Ministerial Acceptability*

All students are admitted subject to the rules of the University and of the Divinity School, and continuance in the School is conditioned upon the observance of such rules.

The University expects of its students loyal and hearty cooperation in maintaining high standards of conduct as well as of scholarship. The University, therefore, reserves the right, and matriculation by the students is a concession of this right, to compel the withdrawal of any student whose conduct at any time is not satisfactory to the University, even though no specific charge is made against the student.

Divinity School students whose progress and development show that they are not suited to the work of the ministry will not be permitted to continue in the School.

# Courses of Instruction\*



REQUIRED courses of the Core Curriculum and Senior Seminars are numbered from 11 to 99. Elective courses carrying credit in the Divinity School only are numbered from 101 to 199. Courses approved for credit in both the Divinity School and the Graduate School of Arts and Sciences are numbered above 200. Lists of courses to be offered in any semester will be available at the time of each registration.

## *I. Biblical Studies*

### OLD TESTAMENT

11. (Formerly 203). INTRODUCTION TO THE OLD TESTAMENT.—The origin, literary forms, and contents of the books of the Old Testament in their geographical and historical setting. 4 s.h. MR. STINESPRING

12. (Formerly 204). PSALMS, WISDOM LITERATURE, AND THE PROBLEM OF THEODICY.—2 s.h. MR. BROWNLEE

101. POST-EXILIC PROPHECY.—A study of the Post-Exilic prophets from Ezekiel to David, with special reference to Messianic prophecy. 3 s.h. MR. BROWNLEE

196. THE BIBLE AND RECENT DISCOVERIES.—A survey of the contribution of the cultural setting of the Bible as an aid to its understanding. Illustrated with archaeological slides. 3 s.h. MR. BROWNLEE

197. CULTURAL HISTORY OF PALESTINE.—A study of significant contributions to civilization made in ancient, medieval and modern Palestine with special reference to the three religions, Judaism, Christianity, and Islam. 3 s.h. MR. STINESPRING

201-202. FIRST HEBREW.—The principles and structure of the Hebrew language with translation of selected Old Testament narratives. 6 s.h. MR. STINESPRING

205-206. ARABIC.—Introduction to the classical language and literature with some attention to the modern idiom. No prerequisite, but one year of Hebrew recommended as preparation. 6 s.h. MR. STINESPRING

207-208. SECOND HEBREW.—Samuel or Kings the first semester and Isaiah the second. 6 s.h. MR. BROWNLEE

301. THE RELIGIOUS THOUGHT OF POST-EXILIC JUDAISM.—A study of the development of religious ideas in Post-Exilic Judaism. Prerequisite: O.T. 11. 3 s.h. MR. BROWNLEE

304. ARAMAIC.—A study of the Aramaic portions of the Old Testament and selected passages from the Targums, Midrashes, and Talmuds. 3 s.h. MR. STINESPRING

305. THIRD HEBREW.—A study of the late Hebrew prose, with readings from Chronicles, Ecclesiastes, and the Mishnah. 3 s.h. MR. STINESPRING

\* On recommendation of the Dean, courses offered in the Graduate School of Arts and Sciences other than those approved for credit in the Divinity School may be approved for credit in individual cases, provided no equivalent course is offered in the Divinity School; each case to be decided on its merits.

306. ADVANCED HEBREW.—A course on the Dead Sea Scrolls. 3 s.h.

MR. BROWNLEE

307. SYRIAC.—A study of the script and grammar, with readings from the Syriac New Testament and other early Christian documents. Some knowledge of Hebrew and Aramaic prerequisite. 3 s.h.

MR. STINESPRING

309. HISTORY OF THE ANCIENT NEAR EAST.—A specialized study of the civilizations of Egypt, Palestine, Syria, and Mesopotamia in the light of Biblical archaeology. 3 s.h.

MR. STINESPRING

310. OLD TESTAMENT PROPHECY.—The prophetic movement in Israel with special emphasis on the prophets of the eighth century B.C. Prerequisite: O.T. II. 3 s.h.

MR. STINESPRING

See also Pr. 183.—MATERIALS OF PREACHING—BIBLICAL.

\*HISTORY OF ART 215. RELIGIOUS ART OF THE ANCIENT NEAR EAST.—The development of art, particularly architecture and sculpture, as the material expression of religious ideas in Egypt, Mesopotamia, and in part Syria and Palestine to the Persian conquest. 3 s.h.

MR. MARKMAN

\*HISTORY OF ART 216. RELIGIOUS ART OF THE CLASSICAL WORLD.—The religious art, particularly architecture and sculpture, of Greece and Rome with special emphasis on the monuments in the Near East. 3 s.h.

MR. MARKMAN

## NEW TESTAMENT

18. (Formerly 213.) EARLY CHRISTIAN LIFE AND LITERATURE.—A basic study of the civilization in which Christianity began; the origin and development of the Christian Church and its literature through the second century. 4 s.h.

MR. CLARK

19. (Formerly 214.) INTRODUCTION TO NEW TESTAMENT THEOLOGY.—A constructive analysis and exposition of the positive doctrinal content of the New Testament. Prerequisite: N.T. I8. 2 s.h.

MR. DAVIES

103-104. (Formerly 211-212.) HELLENISTIC GREEK.—Designed for beginners to enable them to read the Greek New Testament. 6 s.h., provided the student takes three additional semester hours in New Testament Greek.

MR. EDWARDS

105. (Formerly 219.) LIFE OF PAUL.—A study of Paul's life on the basis of Acts and the letters of Paul, emphasizing the permanent values in Paul's work and his contribution to the world. 3 s.h.

MR. MYERS

109. (Formerly 216.) HISTORY OF THE ENGLISH BIBLE.—A general study of the history of the English version with comparison and evaluation of the numerous contemporary translations. This development will be illustrated from the Divinity School Bible collection, with access to and examination of the original editions. 3 s.h.

MR. CLARK

II6. LIVING ISSUES OF NEW TESTAMENT THEOLOGY.—2 s.h.

MR. DAVIES

217. THE NEW TESTAMENT IN GREEK.—Extensive reading of the Greek text of the New Testament with special emphasis upon its interpretation. Prerequisite: six semester hours' study of the Greek language. 3 s.h.

MR. CLARK

218. GALATIANS AND I CORINTHIANS.—A detailed study of two of Paul's major epistles, based on the Greek text. Prerequisite: six semester hours' study of the Greek language. 3 s.h.

MR. DAVIES

220. I PETER AND THE GOSPEL OF JOHN.—A detailed study of two of the non-Pauline writings of the New Testament. The course will be based on the Greek text. Prerequisite: six semester hours' study of the Greek language. 3 s.h.

MR. DAVIES

\* Course offered in the Graduate School of Arts and Sciences which is credited toward the degree of Bachelor of Divinity.

311. THE LIFE AND TEACHINGS OF JESUS.—A study of the events and sayings of the historical Jesus, in the light of His mission. 3 s.h. MR. CLARK

312. ADVANCED NEW TESTAMENT THEOLOGY.—An examination of the central aspects of New Testament Theology. Prerequisite: N.T. 19. 3 s.h. MR. DAVIES

313. APOSTOLIC FATHERS.—A study of the Christian development from Clement of Rome to Polycarp (90-155 A.D.), with readings in the Greek text. 3 s.h. MR. CLARK

314. (Formerly 317.) PATRISTIC THOUGHT.—A study of the development of early Christian doctrine to the period of Irenaeus. Prerequisite: N.T. 19. 3 s.h. MR. DAVIES

316. HELLENISTIC RELIGIONS.—A study of the Gentile religions in the Roman Empire, at the beginning of the Christian era. Prerequisite: N.T. 18. 3 s.h. MR. CLARK

317. (Formerly 320.) THE SYNOPTIC GOSPELS.—A detailed study of their characteristics and contents, based upon the Greek text, with attention to their respective sources and to the development of synoptic criticism. Prerequisite: N.T. 18. 3 s.h. MR. CLARK

318. TEXTUAL CRITICISM OF THE NEW TESTAMENT.—A study of the scientific recovery of the Greek text on which modern versions are based; manuscript discoveries; principles of textual criticism; practice in collating original manuscripts in the Duke collection. 3 s.h. MR. CLARK

319. JUDAISM AND EARLY CHRISTIANITY.—3 s.h. MR. DAVIES

See also Pr. 183. MATERIALS OF PREACHING—BIBLICAL.

\*GREEK 257.—The social and cultural history of the Hellenistic world from Alexander to Augustus. 3 s.h. MR. ROGERS

\*LATIN 258.—The social and cultural history of the Graeco-Roman world. 3 s.h. MR. ROGERS

## *II. Historical Studies*

### HISTORY OF RELIGION AND MISSIONS

15. (Formerly 281.) LIVING RELIGIONS OF THE WORLD.—A survey of the religious systems of India, China, and Japan, followed by a study of Judaism, Mohammedanism, and Christianity, the object being to trace the historical development of each religion. 3 s.h. MR. LACY

24. (Formerly 282.) MISSIONS.—The history and philosophy of the missionary enterprise. 2 s.h. MR. LACY

108. (Formerly 284.) COMPARATIVE RELIGION I.—The ideas of God, sin, and salvation in the religions of the world. Prerequisite: H.R. 15. 3 s.h. MR. CANNON

110. (Formerly 286.) COMPARATIVE RELIGION II.—Ideas of the future life and ethical and social ideas in the religions of the world. Prerequisite: H.R. 15. 3 s.h. MR. CANNON

112. (Formerly 288.) THE RELIGIONS OF INDIA.—A study of present-day religious movements in India, with special reference to Hinduism. 3 s.h. MR. CANNON

113. (Formerly 283.) THE RELIGIONS OF THE FAR EAST.—A study of the religious systems of China and Japan. 3 s.h. MR. CANNON

115. (Formerly 289.) BUDDHISM.—India at the rise of Buddhism. Life of the Buddha and the teachings of early Buddhism. Development into the Hinayana

\* Course offered in the Graduate School of Arts and Sciences which is credited toward the degree of Bachelor of Divinity.

and Mahayana schools, its spread and present condition in southern and eastern Asia. Prerequisite: H.R. 15. 2 s.h. MR. CANNON

117. (Formerly 287.) MOHAMMEDANISM.—The life of Mohammed and the religion of Islam, special attention being given to the Koran and its teachings. The aim is to interpret Mohammedanism as a force today. Prerequisite: H.R. 15. 2 s.h. MR. CANNON

126. MISSIONARY EDUCATION IN THE CHURCH.—Practical programs for Church School, audio-visual aids, preaching, stewardship, and special projects. 2 s.h. MR. LACY

## CHURCH HISTORY

13. (Formerly 233.) HISTORY OF THE PRE-REFORMATION CHURCH.—A survey to the sixteenth century in terms of spiritual genius, organizational development, great literature, and representative movements. 4 s.h. MR. PETRY

14. (Formerly 234.) HISTORY OF THE REFORMATION AND POST-REFORMATION CHURCH.—Selected studies in the evangelical revival of Luther, Calvin, and the English Reformers, as related to the Catholic Counter-Reformation and the contemporary European church. 2 s.h. MR. SCHAFER

136. (Formerly 337.) PRE-REFORMATION PREACHING.—Sermons, handbooks, and other historical sources studied in relation to Biblical preaching and the liturgical church, the problem of popular ministry and the issues of Christian reform. Prerequisite: C.H. 13. 2 s.h. MR. PETRY

137. (Formerly 336.) RELIGIOUS LEADERS IN CHRISTIAN HISTORY.—Representative leaders in the early and medieval church studied in relation to contemporary churchmanship. Prerequisite: C.H. 13. 2 s.h. MR. PETRY

138. GREAT BOOKS IN CHRISTIAN HISTORY.—An intensive study of Augustine's *Confessions*, Thomas à Kempis' *Imitation of Christ*, Erasmus' *Complaint of Peace*, Luther's *Christian Liberty*, Calvin's *Instruction in Faith*, and Andrewes' *Private Devotions*. 3 s.h. MR. PETRY

139. (Formerly 339.) METHODISM.—A study of Methodist societies in England and the developing church in America as they gave rise to such historic issues as polity, education, division, and reunion. Prerequisite: C.H. 13. 2 s.h. MR. PETRY

330. THE CHURCH IN EUROPE SINCE 1800.—Emphasis is placed on the relation of the church to the social, economic, and political life of Modern Europe. Particular attention is given to Papal pronouncements on social issues, the relationship of Eastern to Western institutions, and ecclesiastical historiography as it involves source editions, periodicals, and ecumenical literature. 3 s.h. MR. PETRY

331. THE SOCIAL MESSAGE OF THE EARLY AND MEDIEVAL CHURCH.—A study of the social teachings and contributions of the Christian church prior to the Protestant Reformation. Prerequisite: C.H. 13. 3 s.h. MR. PETRY

332. THE MEDIEVAL CHURCH.—Outstanding characteristics of the medieval church, emphasizing theory, polity, institutions, sacraments, and worship. Prerequisite: C.H. 13. 3 s.h. MR. PETRY

334. CHURCH REFORMERS AND CHRISTIAN UNITY.—The work of such reformers as Marsilius of Padua, William of Ockham, John Gerson, Pierre d'Ailly and Nicholas of Cusa in relation to ecclesiastical schism and the search for Christian unity through representative councils. Prerequisite: C.H. 13. 3 s.h. MR. PETRY

336. (Formerly 333.) A HISTORY OF CHRISTIAN RENUNCIATION IN THE MIDDLE AGES.—A study of the renunciatory ideal and of spiritual practices with special reference to Benedictines, Franciscans, Lowland mystics, and leading seculars. Prerequisite: C.H. 13. 3 s.h. MR. PETRY



## HISTORICAL THEOLOGY

21. (Formerly 222.) INTRODUCTION TO THE HISTORY OF CHRISTIAN DOCTRINE.—The history of Christian thought from the anti-gnostic fathers to the year 1576. Prerequisite: C.T. 20. 2 s.h. MR. SCHAFER

120. THE CREEDS OF CHRISTENDOM.—A historical and interpretative study of great Christian creeds and confessions. 3 s.h. MR. SCHAFER

129. SEMINAR IN HISTORICAL THEOLOGY.—Selected problems in the history of Christian theology. Prerequisite: C.T. 21. 2 s.h. MR. SCHAFER

198. THE HERITAGE OF THE REFORMATION.—A historical consideration of the Protestant tradition in relation to the life and thought of the modern church. 3 s.h. MR. SCHAFER

323. HISTORY OF CHRISTIAN THOUGHT I.—A historical study of theology in the ancient and medieval church. 3 s.h. MR. SCHAFER

324. HISTORY OF CHRISTIAN THOUGHT II.—A historical study of theology from the Reformation. 3 s.h. MR. SCHAFER

See also C.H. 14. HISTORY OF THE REFORMATION AND POST-REFORMATION CHURCH.

## AMERICAN RELIGIOUS THOUGHT

28. (Formerly 296.) MOVEMENTS IN AMERICAN RELIGIOUS THOUGHT.—Beginning with the English Reformation, this course introduces the leading types of Protestantism transplanted to or developed within colonial America, primary emphasis being placed upon the dominant modes of Christian thought. 3 s.h. MR. SMITH

199. THE AMERICAN SOCIAL GOSPEL.—A study of Protestant social thought and action in America since 1865. 3 s.h. MR. SMITH

395. RELIGIOUS THOUGHT IN COLONIAL AMERICA.—Consideration of the principal types of Protestant thought in colonial culture. 3 s.h. MR. SMITH

396. AMERICAN RELIGIOUS THOUGHT IN THE NINETEENTH CENTURY.—Comparative exposition of Orthodoxy and Liberalism. 3 s.h. MR. SMITH

397. CURRENT AMERICAN THEOLOGY.—Critical appraisal of conflicting tendencies in American theological thought. 3 s.h. MR. SMITH

398. MODERN AMERICAN CHRISTOLOGY.—An analysis of the historical development of modern American conceptions of the person and work of Christ. 3 s.h. MR. SMITH

495. SEMINAR: JONATHAN EDWARDS AND JOHN WESLEY.—A comparative study of the major theological writings of Edwards and Wesley. 2 s.h. MR. SMITH

498. SEMINAR: REINHOLD NIEBUHR AND PAUL TILLICH.—An analysis and appraisal of the theological thought of Niebuhr and Tillich. 2 s.h. MR. SMITH

*III. Theological Studies*

## PHILOSOPHY OF RELIGION

119. (Formerly 229.) INTRODUCTION TO PHILOSOPHY OF RELIGION.—A general course; introduction to major philosophies of religion; relation to science, philosophy, art, morality, and tradition; criteria of validity, formulation of a philosophy of religion. (Recommended for students who have had no previous work in Philosophy or the Philosophy of Religion.) 3 s.h. MR. CHANDLER

121. PHILOSOPHY OF CONTEMPORARY THEISM.—A general course: the various forms of contemporary theism will be studied and evaluated. (Recommended for students who have had at least one course in Philosophy of Religion.) 2 s.h. MR. CHANDLER

122. THE PHILOSOPHY OF NATURALISTIC THEISM.—A seminar; a study of the metaphysics, epistemology, logic, and theory of value of the most recent attempt to formulate a structure of Christian theism. Prerequisite: consent of instructor. 2 s.h.

123. THEORIES OF VALUE: A GENERAL COURSE.—A comparative study of the major theories of value advanced in contemporary philosophy. 2 s.h.

124. THE PHILOSOPHY OF PERSONALISM.—A seminar; a study of the metaphysics, epistemology, logic, and theory of value of the personalist tradition in Christian thought. Prerequisite: consent of instructor. 2 s.h.

382. RELIGIOUS KNOWLEDGE.—A seminar; a critical investigation of the source, nature, and validity of religious knowledge involving reference to the relation of revelation to reason and scientific methodology in knowledge. Prerequisite: P.R. 119 or consent of instructor. 2 s.h.

## CHRISTIAN THEOLOGY

20. (Formerly 221.) INTRODUCTION TO CHRISTIAN THEOLOGY.—Contemporary theological tendencies, method and theory of knowledge, and introductory interpretation of the principal tenets of the Christian faith. 4 s.h.

MR. CUSHMAN

107. (Formerly 329.) THE PERSON AND WORK OF CHRIST.—An intensive examination of classical types of Christological and soteriological formulation in the history of Christian reflection, assessment and constructive position. Prerequisite: C.T. 20. 2 s.h.

MR. CUSHMAN

224. (Formerly 323.) CONCEPTIONS OF MAN IN WESTERN THOUGHT.—An analysis and interpretation of important types of philosophical and theological theory concerning man with a view to critical evaluation and construction. 3 s.h.

MR. CUSHMAN

321. PLATONISM AND CHRISTIANITY.—An analysis of Plato's religious philosophy and a survey of its continuing influence in Hellenistic and Christian thought. Prerequisite: permission of instructor. 3 s.h.

MR. CUSHMAN

322. THEOLOGY AND PHILOSOPHY IN THE NINETEENTH CENTURY.—A study of Protestant thought from Schleiermacher to Troeltsch together with representative theologians of Britain, with special attention to the reciprocal relations between theology and metaphysics. Prerequisite: C.T. 20. 3 s.h.

MR. CUSHMAN

325. PHILOSOPHICAL THEOLOGY I.—Analysis and critique of dominant types of contemporary world-views for the formulation of the problem of philosophical theology. Main problems in the history of philosophical theology. Prerequisite: C.T. 20. 3 s.h.

MR. CUSHMAN

326. PHILOSOPHICAL THEORY II.—Historical and constructive approach to the problem of faith and reason, God and evil. Prerequisite: C.T. 325. 3 s.h.

MR. CUSHMAN

328. (Formerly 321B.) SEMINAR IN TWENTIETH-CENTURY CONTINENTAL AND BRITISH THEOLOGY.—Critical examination of the thought of Barth, Brunner, Berdyaev, Maritain, F. R. Tennant, and William Temple. 3 s.h.

MR. CUSHMAN

See also NEW TESTAMENT 312.—ADVANCED NEW TESTAMENT THEOLOGY.

## CHRISTIAN ETHICS

27. (Formerly 291.) CHRISTIAN ETHICS I.—The central assumptions and principles of the Christian conception of the good life. 3 s.h.

MR. BEACH

114. (Formerly 292.) CHRISTIAN ETHICS II.—The application of Christian ethics to life in modern society with particular emphasis on the ethical problems of the typical American community. Prerequisite: C.E. 27. 2 s.h.

MR. BEACH

190. THE CHRISTIAN CRITIQUE OF COMMUNISM.—Analysis of and alternatives to this dynamic secular ideology from a religious standpoint. 3 s.h.

MR. LACY

192. CHRISTIANITY AND INTERNATIONAL RELATIONS.—An application of Christian Ethics to world problems. 3 s.h.

MR. LACY

194. INTRODUCTION TO CHRISTIAN SOCIAL ETHICS.—Christian norms for social policy and their application to the domestic, economic, political, and racial patterns of modern culture. 3 s.h.

MR. LACY

391. HISTORICAL TYPES OF CHRISTIAN ETHICS I.—A critical study of representative documents of Christian ethical theory, up to the Reformation. Prerequisite: C.E. 27 or its equivalent. 3 s.h.

MR. BEACH

392. HISTORICAL TYPES OF CHRISTIAN ETHICS II.—A continuation of C.E. 391, covering the Reformation and current Christian ethical theory. Prerequisite: C.E. 391. 3 s.h.

MR. BEACH

393. (Formerly 193.) THE CHRISTIAN INTERPRETATION OF HISTORY.—A comparative examination of the chief secular and Christian theories of history current in Western thought. For advanced students. Prerequisite: C.E. 27. 3 s.h.

MR. BEACH

394. CHRISTIANITY AND THE STATE.—The relation of the Christian theory of the State to political problems with special consideration of the religious assumptions underlying democratic theory and practice. Prerequisite: C.E. 27. 3 s.h.

MR. BEACH

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\*238. RACE AND CULTURE.

MR. THOMPSON

\*249. CHILD WELFARE.

MR. JENSEN

\*250. MARRIAGE AND THE FAMILY.

MR. HART

\*276. CRIMINOLOGY.

MR. JENSEN

\*382. HISTORY OF SOCIOLOGICAL THEORY.

MR. JENSEN

### PSYCHOLOGY OF RELIGION

22. (Formerly 271.) PSYCHOLOGY OF RELIGION.—An analysis of the major factors in religious experience. 3 s.h.

MR. RICHEY

125. (Formerly 272.) ADVANCED PSYCHOLOGY OF RELIGION.—An intensive study of the foundations and presuppositions of religious experience. 3 s.h.

MR. RICHEY

127. (Formerly 373.) PSYCHOLOGY OF PREACHING.—A psychological study of the preaching motive and preaching relationships. 2 s.h.

128. (Formerly 374.) PASTORAL PSYCHOLOGY.—Study of psychological problems and principles involved in pastoral work. 2 s.h.

129. (Formerly 375.) GENETIC PSYCHOLOGY OF RELIGION.—A study of the religious experience of childhood and youth. 3 s.h.

130. (Formerly 376.) STUDIES IN MYSTICISM.—An examination of the mystical aspect of religious experience. 3 s.h.

## IV. Practical Studies

The Core Curriculum sequence, Consolidated Course in Christian Leadership, comprises the following courses in the Division of Practical Studies, each of which is listed in its appropriate department:

P.T. 23. CHURCH ADMINISTRATION I.—2 s.h.

\* Course offered in the Graduate School of Arts and Sciences which is credited toward the degree of Bachelor of Divinity. For a description of the course, see the catalogue of the Graduate School.

R.E. 25. EDUCATIONAL THEORY AND PRACTICE IN THE CHURCH.—2 s.h.

H.R. 24. MISSIONS.—2 s.h.

P.C. 26. INTRODUCTION TO PASTORAL CARE.—2 s.h.

### PRACTICAL THEOLOGY

23. (Formerly 252.) CHURCH ADMINISTRATION I.—An introduction to the administrative and supervisory procedure essential in the total work of the church. 2 s.h. MR. WALTON

142. (Formerly 253.) FIELD WORK I—GENERAL.—A course designed to help with personal and parish problems, and the techniques of successful service. 1 s.h. (Note: All students working under or assisted by the Duke Endowment or by Divinity School funds are required to take this course, or 144, Field Work II, or 145, Field Work III.) MR. WALTON

144. (Formerly 254.) FIELD WORK II—RURAL.—This course is designed to prepare students for work in rural churches. It emphasizes the training values in field work. 1 s.h. MR. WALTON

145. FIELD WORK III—URBAN.—This course is designed to prepare students for work in urban churches. It is planned to help the student fit into the urban situation and to gain the most from his field work. 1 s.h. MR. HILLMAN

146. CHURCH ADMINISTRATION II.—This course considers the principles of program planning, policy development, and leadership enlistment and training in the church. 3 s.h. MR. WALTON

147. THE URBAN COMMUNITY.—2 s.h.

MR. REGEN

148. CHURCH FINANCE.—A seminar to consider the principles of budget making, stewardship instruction, and every member enlistment in church support. 2 s.h. MR. WALTON

149. PARISH AND COMMUNITY RESEARCH AND ANALYSIS.—A seminar to consider the techniques of community surveys, research, and analysis. Attention is given to the use of research data in program planning and in checking on the effectiveness of church work. 2 s.h. MR. WALTON

150. THE RURAL PASTOR AND HIS WORK.—A study of the qualifications of the rural pastor and his task. Attention is given to the supervisory methods and materials available for the pastor's use and to the current trends in rural life and their influence upon church work. 3 s.h. MR. WALTON

151. (Formerly 353.) THE RURAL CHURCH.—A study of rural conditions and the place of the church as a community institution and the problems and situations met in local church management and supervision. 3 s.h. MR. WALTON

152. (Formerly 354.) PARISH EVANGELISM.—A study seeking to prepare the student to plan a comprehensive and continuous program of evangelism for the local church. 2 s.h. MR. HILLMAN

154. (Formerly 356.) THE URBAN CHURCH.—A study of the functions of the church in towns and cities with special attention to changing city conditions. 2 s.h. MR. REGEN

155. (Formerly 357.) CHURCH POLITY: COMPARATIVE AND DENOMINATIONAL.—This is a study of the polity of the different denominations in which the students may serve, based upon the disciplines and practices of the respective denominations. 2 s.h. MR. WALTON, MR. KALE, MR. REGEN AND OTHERS

(The plan of this course is for the class to meet as a unit one hour a week for the study of the common interests of the denominations; for the other hour the class is divided into groups on the following plan:

a. THE POLITY OF THE METHODIST CHURCH.—The study will be based upon the Methodist Discipline. MR. KALE



## b. THE POLITY OF THE BAPTIST CHURCHES.

## c. THE POLITY OF THE CONGREGATIONAL-CHRISTIAN CHURCHES.

## d. THE POLITY OF THE PRESBYTERIAN CHURCHES.

MR. REGEN

(Courses in the polity of other churches will be arranged as needed.)

**FIELD WORK CREDIT.**—Granted on written recommendation of the Director of Field Work upon the completion of satisfactory work in P.T. 23, the completion of Field Work Seminar, 142, 144, or 145, and the performance of successful field work. 1 s.h.

## RELIGIOUS EDUCATION

25. (Formerly 261.) **EDUCATIONAL THEORY AND PRACTICE IN THE CHURCH.**—An over-all and introductory view of the educational functions of the church. Consideration is given to the work of organization, administration and supervision of the church school. 2 s.h.

MR. KALE

158. **CHRISTIAN EDUCATION AND THE COMMUNITY.**—A study of the principles, practices, methods and materials of Christian Education as related to the total community life. 3 s.h.

MR. KALE

160. **EVANGELISM IN THE CHURCH SCHOOL.**—A study of the place of evangelism in the work of the church school. 2 s.h.

MR. KALE

161. **THEORIES, TYPES AND TECHNIQUES OF TEACHING.**—A study of the main principles underlying religious teaching with an examination of the different methods of teaching. 2 s.h.

MR. KALE

162. (Formerly 262.) **METHODS AND MATERIALS OF RELIGIOUS EDUCATION.**—A consideration of the principal administrative problems of the church school, of the various concepts of the curriculum, and an examination of existing curricula, their nature, use and value. 3 s.h.

MR. KALE

163. (Formerly 363.) **WORSHIP AND DRAMA.**—Worship in its bearings upon the educational functions of the Christian religion. The use of drama in religious education with the creation of dramatic programs of worship and drama writing and production. 3 s.h.

164. **RELIGIOUS EDUCATION OF CHILDREN.**—The organization and administration of the work of the church with children of the nursery, kindergarten, primary and junior age groups. 2 s.h.

MR. KALE

165. **RELIGIOUS EDUCATION OF YOUTH.**—The organization and administration of the youth program in the local church. 2 s.h.

MR. KALE

166. **RELIGIOUS EDUCATION OF ADULTS.**—A study of the needs of adults; the materials, methods, and principles of organization for the religious education of adults. 2 s.h.

MR. KALE

167. **HISTORY OF RELIGIOUS EDUCATION IN MODERN TIMES.**—A critical study of the historical movements in religious education since the Reformation with special consideration of the American development. 3 s.h.

MR. KALE

169. **THEORIES OF RELIGIOUS EDUCATION.**—A critical investigation of current theories of Religious Education. 3 s.h.

MR. KALE

## PASTORAL CARE

26. (Formerly 251.) **INTRODUCTION TO PASTORAL CARE.**—A study of the background, needs and methods of pastoral work and personal counseling. 2 s.h.

MR. DICKS

170. **SEMINAR IN PASTORAL CARE.**—For students preparing for full-time pastoral ministry, hospital chaplaincy, industrial chaplaincy, ministry to older people, or work with young people. Practicum. Prerequisite: P.C. 26 or consent of instructor. 2 s.h. class and 1 s.h. clinic.

MR. DICKS

171. (Formerly 255.) **PASTORAL CARE PRACTICUM I.**—A study of pastoral calls and interviews. Particularly for students serving churches or working in



clinical situations. Prerequisite: P.C. 26 or consent of instructor. 2 s.h. class and 1 s.h. clinic. MR. DICKS

172. (Formerly 256.) PASTORAL CARE PRACTICUM II.—Advanced pastoral care for students serving churches or working in clinical situations. Prerequisite: P.C. 26 or P.C. 171. 3 s.h. MR. DICKS

173. RELIGION AND HEALTH.—The study of the relation of body and mind and of the religious resources for health through counseling and worship. Prerequisite: P.C. 26 or consent of instructor. 2 s.h. MR. DICKS

174. PERSONAL COUNSELING.—A study of formal personal counseling for those going into the ministry, religious education, and work with college students. 2 s.h. MR. DICKS

[Open to a limited number of first-year students.]

175. (Formerly 351.) THE LITERATURE OF PASTORAL CARE.—Directed reading and seminar discussion of writings in the field of psychiatry, psychology, sociology, social work, and ministry, and other fields as they relate to pastoral care. Prerequisite: consent of instructor. 2 s.h. MR. DICKS

176. PASTORAL CARE AND SOCIAL WORK.—Lectures by various specialists and visits to social agencies to orient the minister in relation to other specialists working with individuals and to familiarize him with social service resources. 2 s.h. MR. DICKS

[Open to a limited number of first-year students.]

177. ADVANCED SEMINAR IN PASTORAL CARE.—Continuation of 170, which, however, is not a prerequisite. Emphasis upon hospital ministry. Practicum. Prerequisite: P.C. 26 or consent of instructor. 2 s.h. class and 1 s.h. clinic. MR. DICKS

## PREACHING

29-30. SERMON CONSTRUCTION—THEORY AND PRACTICE.—An investigation of the theory of preaching (first semester). Detailed work in practice preaching and a clinical session each week on the application of theory (second semester). 4 s.h. MR. CLELAND, MR. RUDIN AND MR. DUNN

181. (Formerly 244.) PRACTICAL PROBLEMS IN PREACHING.—Analysis of selected sermons and discussion of problems facing the preacher in the pulpit. Prerequisite: Pr. 29 and 30. 2 s.h. MR. CLELAND

183. (Formerly 346.) MATERIALS OF PREACHING—BIBLICAL.—The problem of authority in the Bible and an evaluation of selected portions of the Bible for present-day preaching. 2 s.h. MR. CLELAND

184. PREACHING VALUES IN THE PAULINE EPISTLES.—A study of the religious experience and theology of St. Paul and its influence on his ethical theory and practice. 3 s.h. MR. CLELAND

185. (Formerly 348.) MATERIALS OF PREACHING—NON-BIBLICAL.—An evaluation of great literature—drama, poetry, biography, fiction—from the point of view of its value for modern preaching. 3 s.h. MR. CLELAND

Sec also: C.H. 136. PRE-REFORMATION PREACHING.

Psy.R. 127. PSYCHOLOGY OF PREACHING.

## PUBLIC WORSHIP

178. (Formerly 355.) PUBLIC WORSHIP.—The theory and practice of the worship of the Church: an analysis of the rites and ceremonies in "The Book of Worship." 3 s.h. MR. CLELAND AND MR. RUDIN

180. (Formerly 358.) CHURCH MUSIC.—A study of hymnology, song leading, and problems of the modern church choir. (Offered in both semesters.) 3 s.h. MR. BARNES

## SPEECH

17. (Formerly 241.) EFFECTIVE SPEAKING.—Fundamentals of preparation and delivery to develop effectiveness in private and public speech. Individual conferences (four sections). (Students electing Vocational Group I will, upon recommendation of the instructors in Preaching and Speech, take Speech 132 also.) 2 s.h.

MR. RUDIN

132. (Formerly 242.) PUBLIC SPEAKING.—Composition and delivery, based upon individual needs. Selection and arrangement of materials, principles of persuasion, intensive practice in delivery. Individual conferences. 2 s.h.

MR. RUDIN

134. (Formerly 246.) ORAL INTERPRETATION OF LITERATURE.—A course for advanced students designed to develop effectiveness in interpreting the Bible and other commonly used materials of public worship. Individual conferences and drill sections to be arranged. Prerequisite: Speech 17. 2 s.h.

MR. RUDIN

*V. Senior Seminars*

In the third year each B.D. candidate will take one Senior Seminar, yielding 2 s.h. credit. No student may enroll in more than one Senior Seminar without special permission of the Dean. Juniors and Middlers are not eligible for credit. Senior Seminars will not yield Graduate School credit, nor be open to special students.

Enrollment in each Senior Seminar shall be normally not more than twelve. No Senior Seminar need be conducted for an enrollment of less than 5 students. Each Senior Seminar will be in charge of a Chairman. Not less than two instructors will participate in each Seminar. General supervision of all Senior Seminars will be exercised by a standing committee of the Faculty.

The work done in each Senior Seminar should be equivalent to that done in a normal 2 s.h. course, with reading based upon a prepared reading list and a substantial paper or written project report.

## FIRST SEMESTER

61. THE CHRISTIAN FAITH AND ITS PROCLAMATION.—2 s.h.

MR. CLELAND, MR. CUSHMAN, MR. RUDIN

63. THE ECUMENICAL MOVEMENT IN THE MODERN CHURCH.—2 s.h.

MR. SMITH, MR. LACY

65. PRACTICAL VALUES OF BIBLICAL RESEARCH.—2 s.h.

MR. CLARK, MR. STINESPRING

67. THE NEW TESTAMENT AS MATERIALS FOR TEACHING.—2 s.h.

MR. DICKS, MR. DAVIES, MR. KALE

## SECOND SEMESTER

62. WESTERN CHRISTIANITY AND NON-CHRISTIAN FAITHS.—2 s.h.

[Not offered in 1953-54.]

MR. PETRY, AND OTHERS

64. THE OLD TESTAMENT AS MATERIALS FOR TEACHING.—2 s.h.

MR. KALE, MR. BROWNLEE, MR. STINESPRING

66. THE CHRISTIAN CHURCH AND SOCIAL CHANGE.—2 s.h.

MR. BEACH, MR. LACY

68. CHRISTIAN EXPERIENCE AND CONTEMPORARY CHURCH LIFE.—2 s.h.

MR. WALTON, MR. MYERS, MR. SCHAFER

# Summer Session, 1953

## COURSES OF INSTRUCTION



Courses carrying credit in the Divinity School only are numbered from 101 to 199. Courses approved for credit in both the Divinity School and the Graduate School of Arts and Sciences are numbered above 200. Students entering the Divinity School for the first time in the Summer Session of 1953 will choose courses numbered from 101 to 199.

### First Term: June 10-July 18

S105 (DS). LIFE OF PAUL.—A study of Paul's life on the basis of Acts and the letters of Paul, emphasizing the permanent values in Paul's work and his contribution to the world. For Divinity School students and college seniors. 3 s.h.—9:20-10:40, 3.109. MR. MYERS.

S111 (DS). INTRODUCTION TO CHRISTIAN SOCIAL ETHICS.—Christian norms for social policy and their application to the domestic, economic, political, and racial patterns of modern culture. For Divinity School students and college seniors. Not open to students who have had 114 D.S. 3 s.h.—11:00-12:20, 3.109. MR. BEACH.

S158 (DS). CHRISTIAN EDUCATION AND THE COMMUNITY.—A study of the principles, practices, methods and materials of Christian Education as related to the total community life. For Divinity School students and college seniors. 3 s.h.—1:40-3:00, 3.109. MR. KALE.

S178 (DS). PUBLIC WORSHIP.—The theory and practice of the worship of the Church: an analysis of the rites and ceremonies in "The Book of Worship." For Divinity School students. 3 s.h.—7:40-9:00, 3.109. MR. CLELAND.

### Second Term: July 21-August 28

S197 (DS). CULTURAL HISTORY OF PALESTINE.—A study of significant contributions to civilization made in ancient, medieval and modern Palestine with special reference to the three religions, Judaism, Christianity, and Islam. For Divinity School students and college seniors. 3 s.h.—1:40-3:00, 3.109. MR. STINE-SPRING.

S199 (DS). THE AMERICAN SOCIAL GOSPEL.—A study of Protestant social thought and action in America since 1865. For Divinity School students and for college seniors. 3 s.h.—7:40-9:00, 3.109. MR. SMITH.

S310 (DS). OLD TESTAMENT PROPHECY.—The prophetic movement in Israel with special emphasis on the prophets of the eighth century B.C. For Divinity School students and Graduate students. 3 s.h.—9:20-10:40, 3.109. MR. STINESPRING.

S398 (DS). MODERN AMERICAN CHRISTOLOGY.—An analysis of the historical development of modern American conceptions of the person and work of Christ. For Divinity School students and Graduate students. 3 s.h.—11:00-12:20, 3.109. MR. SMITH.

# Cost, Residential Arrangement, and Student Aid



## *Fees and Costs*

THE University tuition charge is \$175 per semester. Scholarships covering this amount are granted to all Divinity School students. Other charges are as follows:

### *Fees per semester:*

General Fee .....	\$ 50.00
Approximate cost of meals per semester.....	175.00
Room per semester (double room) .....	62.50
Total per semester.....	\$287.50

The "General Fee" is in lieu of all special charges, and includes the following Fees: Matriculation, Medical, Library, Damage, Commencement and Diploma. Divinity School students may secure admission to all regularly scheduled University athletic contests held on the University grounds during the entire academic year by payment of the athletic fee of \$10.00 per year plus any Federal taxes that may be imposed. This fee is payable in the fall semester.

Due to rising costs, a readjustment in charges, including room rents, is being considered. In the event of an adjustment, applicants will be notified.

## LATE REGISTRATION

Students matriculating in either semester at a date later than that prescribed in the catalogue shall pay to the Treasurer of the University a penalty of \$5.00.

## *Living Accommodations*

Women graduate students occupy Epworth Hall, on the Woman's College Campus, which provides facilities for fifty-seven women. There is no dining room in Epworth Hall, but meals may be had in the cafeterias of the Unions. Rooms in Epworth Hall rent for one hundred fifty dollars (\$150.00) each semester for a room for two persons or seventy-five dollars (\$75.00) each occupant each semester and one hundred dollars (\$100.00) for a single room.

The Men's Graduate Center containing bedroom facilities for four hundred men, complete with lounges, study rooms, recreational rooms,

post office and dining hall, is available to men of the graduate and professional schools. Divinity School students are eligible for rooms in this building. The rooms are equipped for two persons and the rental charge is one hundred twenty-five dollars (\$125.00) each semester or sixty-two dollars and fifty cents (\$62.50) each person each semester.

Rooms may be reserved by new applicants only if they have been officially accepted for admission by the University and if they have paid a room deposit of twenty-five dollars (\$25.00). The room deposit is refundable, provided application for refund is made sixty days prior to the registration date of the semester for which the room was reserved or within thirty days after official withdrawal from the University Residence Hall.

A resident student, in order to retain his room for the succeeding semester, must make application at the office of the Housing Bureau for confirmation of the reservation. In order to secure a refund of his initial room deposit, he must cancel his room reservation sixty days prior to the registration date of the semester for which the room was reserved. All rooms which have not been reserved on or before an announced date will be considered vacant for the succeeding semester and will be reserved in the order in which applications are made.

Rooms are rented for no shorter period than one semester or, in the case of a medical student, one quarter, unless by special arrangement with the Housing Bureau. A period of occupancy other than a semester or quarter and without special arrangement will be charged at a minimum rate of twenty-five dollars (\$25.00) or at a rate of one dollar each day of occupancy.

The exchange of rooms may be arranged at the Housing Bureau within fifteen days after the official opening of the semester or quarter of the school term. Thereafter a charge of two dollars (\$2.00) may be made. Persons exchanging rooms without the approval of the Housing Bureau will be subject to charges for both rooms.

The authorities of the University do not assume responsibility for the persons selected as roommates. Each student is urged to select the roommate when the room is reserved.

Beds and mattresses (39" x 74"), tables, chairs, dressers, mirrors, and window shades are furnished by the University. The student supplies linens, blankets and pillows. Rugs, if desired, are not to exceed fifty (50) square feet in size.

Regulations governing the occupancy of rooms will be supplied directly from the Housing Bureau when room reservations are made. Occupants are expected to abide by these regulations.

The University has no apartments for married students. Students desiring such quarters should plan to arrive in Durham as early as possible before the opening of each semester in order to make their



living arrangements. While the Divinity School office will assist wherever it can in these matters, it cannot assume responsibility for making such arrangements.

### DINING HALLS

Food service on both the Woman's College Campus and the West Campus is cafeteria style. The cost of meals approximates \$1.75 to \$2.25 per day depending upon the need and taste of the individual. The dining facilities on the West Campus include three cafeterias with multiple choice menus and, in addition, the Oak Room, where full meals and *a la carte* items are served. The Men's Graduate Center has a cafeteria open at meal hours, and a coffee lounge which is open until 11:00 P.M. The prices are the same as in the West Campus Union.

### *Student Aid*

Duke University remits its regular tuition charges to all students enrolled in the Divinity School. In recognition of this, students are expected to render occasional services such as the teaching of Church School classes and responding to calls for particular services. Financial aid, over and above this, is available only in the form of grants-in-aid and work scholarships. These funds come from the sources described on pages 40 through 42 of this catalogue. Those appointed to such work agree to give ten weeks' service during the summer months to a church to which they are assigned. In return they receive their board and room for the period of their summer service and amounts varying up to \$600. By special arrangement a student may be assigned to a church for five weeks' work with one-half the stated remuneration. This plan provides an opportunity for earning a large part of the year's expenses, while at the same time assuring the student valuable experience in religious leadership.

In most cases students will be expected to be able to finance themselves for the first semester of work in the Divinity School; those who show that they can carry their school work satisfactorily are then eligible for various forms of financial assistance.

Students who must have additional income over and above their summer's earnings may secure part-time employment during the academic year. They are strongly urged, however, to make their arrangements so that they will not have duties which will prevent their taking the fullest advantage of the educational and cultural opportunities of the Divinity School.

### FIELD WORK SUPERVISION

The Department of Field Work is maintained to help students receiving financial aid to secure work opportunities where they may

render service for such aid. Their work will be supervised so that their experiences may be part of their ministerial training. Students are also helped to secure work opportunities for the experience to be gained. All students working under the department have their board, room, laundry, and travel expenses provided by the charge served. Certain courses are required of all students engaged in field work and are designed to prepare them for the work in which they engage. All students assigned to field work must maintain satisfactory grades and attitudes.

All students working under the Duke Endowment or similar aid are required to attend the Christian Convocation unless excused in writing by the Dean on recommendation of the Director of Field Work.

### LOAN FUNDS

Divinity School students who have satisfactorily completed one semester's work are eligible to apply for loans from the University Loan Funds. Such applications should be filed on the approved forms in the Office of the Secretary of Duke University within the first week of each semester.

### ENDOWED SCHOLARSHIP FUNDS

Certain special scholarship funds have been established, the income of which is available for students wishing to secure training in preparation for the Christian ministry.

These scholarships are all awarded on the basis of service performed in a local church, thus providing experience as well as financial aid for the student.

#### N. EDWARD EDGERTON FUND

In 1939 Mr. N. Edward Edgerton of Raleigh, North Carolina, an alumnus of Duke University of the Class of 1921, a member of the Board of Trustees of the University and a member of the Committee on the Divinity School, established the N. Edward Edgerton Fund. The award is limited to students who are candidates for the B.D. degree.

#### P. HUBER HANES SCHOLARSHIP

Mr. P. Huber Hanes of Winston-Salem, North Carolina, an alumnus of Duke University of the Class of 1900 and a member of the Board of Trustees, has established an annual scholarship yielding the sum of \$400.00.

#### ELBERT RUSSELL SCHOLARSHIP

In 1942 the Alumni Association of the Divinity School established a scholarship fund in honor of Elbert Russell, Dean Emeritus of the Divinity School and for a number of years Professor of Biblical Theology.

## W. R. ODELL SCHOLARSHIP

In 1946 the Forest Hills Methodist Church, Concord, North Carolina, established a scholarship fund in memory of W. R. Odell, for many years a member of the Board of Trustees of the University.

## MYERS PARK SCHOLARSHIP FUND

The Myers Park Scholarship Fund was established in 1948 by contributions of the members of the congregation of the Myers Park Methodist Church, Charlotte, N. C.; the income to be used for the benefit of the Divinity School.

## HERSEY E. SPENCE SCHOLARSHIP

In 1947 the Steele Street Methodist Church of Sanford, North Carolina, established a scholarship fund in honor of Professor Hersey E. Spence, a former pastor of the congregation, the income to be used for scholarship aid to deserving students of the Divinity School.

## GEORGE M. IVEY SCHOLARSHIP FUND

This fund was established December 8, 1948, by gift of George M. Ivey, of Charlotte, North Carolina, an alumnus of Duke University of the Class of 1920 and a member of the Board of Trustees of the University, the income to be used for scholarship aid for deserving students in the Divinity School.

## LAURINBURG CHRISTIAN EDUCATION FUND

This fund was established December 11, 1948, by gift through the Methodist College Advance Fund, the income to be used for scholarship aid for worthy students of the Divinity School.

## JESSE M. ORMOND SCHOLARSHIP FUND

In 1948 the North Carolina Conference established a fund in honor of Professor Jesse M. Ormond, who for many years was Director of Field Work in the Duke Divinity School and Professor of Practical Theology.

## R. ERNEST ATKINSON LEGACY

In 1952, under the will of the Reverend R. Ernest Atkinson, of Richmond, Virginia, a member of the Trinity College Class of 1917, a sum of money was given to the Divinity School, the income to be used for the benefit of the School.

## DUKE ENDOWMENT GRANTS-IN-AID

The Duke Endowment provides aid to North Carolina rural Methodist churches for operation and maintenance. There are available from this source grants-in-aid to provide additional pastoral service. At the present rate of income approximately sixty students can

be employed as assistant pastors in this service during the summer. Terms of these grants are given on page 39 of this catalogue.

### ANNUAL SCHOLARSHIPS

In addition to the endowed scholarships and funds provided by the Duke Endowment, the Divinity School receives annual scholarship funds from the following organizations and individuals: The Virginia Conference Duke Alumni; Myers Park Methodist Church, Charlotte, N. C.; the Dilworth Methodist Church, Charlotte, N. C.; the South Carolina Conference of the Methodist Church; the First Methodist Church of Kingsport, Tenn.; Centenary Methodist Church, Winston-Salem, N. C.; Hawthorne Lane Methodist Church, Charlotte, N. C.; Madison Street Church, Clarksville, Tenn.

These scholarships are awarded on the same basis as the endowed scholarships.

### THE METHODIST CHURCH

The Methodist Church makes a substantial contribution to the Divinity School by designating a certain percentage of its World Service offerings to the School.

The North Carolina and the Western North Carolina Conferences, direct a certain percentage of the College Sustaining Fund to the Divinity School.

### THE METHODIST COLLEGE ADVANCE

The Divinity School was a participant in the North Carolina Methodist College Advance with askings of \$200,000.00 for scholarship aid and extension of the School's service to ministers. Many local churches and individuals have shared in the raising of this significant sum. Specific contributions are the Henry Harrison Jordan Loan Library, the James A. Gray Fund, the J. M. Ormond Fund, the Laurinburg Christian Education Fund, and the Hersey E. Spence Fund.

### THE JAMES A. GRAY FUND

In 1947 Mr. James A. Gray of Winston-Salem, North Carolina, presented the fund which bears his name to the Divinity School for use in expanding and maintaining its educational services in behalf of North Carolina churches and pastors. From this fund three scholarships are awarded, two in city church work, and one in rural church work. The Divinity School Seminars and a number of scholarships in the School for Approved Supply Pastors are also supported by income from this gift as well as the James A. Gray Lectures.

### FRANK S. HICKMAN PREACHING PRIZE

The Frank S. Hickman prize in preaching, amounting to \$90.00 in cash for the best sermons preached in an annual contest, was established in 1950.

# Enrollment 1952-53



## *Fall and Spring Semesters*

- Adams, Billy Crotts (A.B., Wofford College), Lexington, N. C.  
Aitken, Louis Allon (B.A., Buena Vista College), Larrabee, Iowa.  
Aitken, Paul Wesley (A.B., Morris Harvey College), South Charleston, W. Va.  
Allred, Charles Fred (A.B., Elon College), Summerfield, N. C.
- Bailey, Daniel Edwin (A.B., Catawba College), Albemarle, N. C.  
Bailey, William Ray (B.A., Emory and Henry College), Tazewell, Va.  
Ballettine, Wyman Wayne (B.S., Clemson Agricultural College), Blythewood, S. C.  
Barkley, Lundy Meredith (B.S., Hampden-Sydney College; Union Theological Seminary (in Virginia), 1949-51), Lawrenceville, Va.  
Barrett, Claude Lillon, III (A.B., High Point College), Kinston, N. C.  
Bartak, Helen Elizabeth (A.B., Duke University), Houston, Texas.  
Bass, Walton Needham (A.B., Wofford College), Goldsboro, N. C.  
Beasley, Joseph Hodgins (B.A., University of North Carolina), Randleman, N. C.  
Beaty, James L. (B.S., Tennessee Polytechnic Institute), Jamestown, Tenn.  
Bennett, Erman Fay (B.S., College of the Ozarks), Clarksville, Ark.  
Bennett, William Leffis (B.A., Wake Forest College; M.A., Duke University), Shallotte, N. C.  
Bird, John Stephen (B.S., Concord College), Athens, W. Va.  
Black, David Coley (A.B., Duke University), Durham, N. C.  
Blue, John Robert (B.S., University of Missouri), Poplar Bluff, Mo.  
Bortner, Ernest Edward, Jr. (B.E., The Johns Hopkins University), Baltimore, Md.  
Boulton, Edwin Charles (A.B., William Jewell College), St. Joseph, Mo.  
Brannetter, Edwin Elvin (A.B., Morris Harvey College; Asbury Theological School, 1951-52), Sharon, W. Va.  
Bridges, Lawrence James (B.A., Wake Forest College), Shallotte, N. C.  
Brodie, Robert Stewart (B.A., University of Florida), Inez, N. C.  
Brogan, Wesley Gamble (B.A., Dickinson College), Moncure, N. C.  
Brown, Chester Darroll (A.B., High Point College), High Point, N. C.  
Burks, Peter Talmadge (B.A., University of North Carolina), Charlotte, N. C.  
Bush, Newell Campbell (A.B., Wofford College), Gastonia, N. C.  
Bush, Warren Thomas (B.S., Wake Forest College), Roanoke Rapids, N. C.  
Butler, William Warren (A.B., Duke University), Atlanta, Ga.
- Cahow, Clark R. (A.B., Duke University), Durham, N. C.  
Campbell, Alfred Mayberry (B.A., Randolph-Macon College; The Divinity School, Yale University, 1949-50), Penhook, Va.  
Caudill, Clarence Jack (A.B., University of Tennessee), Millers Creek, N. C.  
Christopher, Richard Lawrence (B.A., Evansville College), Huntingburg, Ind.  
Christy, John Holmes, Jr. (A.B., Duke University), Andrews, N. C.  
Clarke, Wilfong Waldron, Jr. (A.B., Wofford College), Newport, N. C.  
Clary, Carl Douglas (A.B., Wofford College), Gaffney, S. C.  
Coffey, John Haines (B.A., Baldwin-Wallace College), Arlington, Va.  
Copeland, Isaac Mathias, Jr. (A.B., Duke University), Norfolk, Va.  
Coward, David Morrill (A.B., Emory University), Elberton, Ga.  
Crook, James Rutland, Jr. (A.B., Duke University), Jacksonville, Fla.  
Crowder, Richard Joseph (A.B., Duke University), High Point, N. C.  
Crum, John Hammond (A.B., Emory University), Raleigh, N. C.
- Dalton, Clarence P. (A.B., A.M., West Virginia University), Worth, W. Va.  
Daugherty, Luby Guilford (B.A., Wake Forest College), New Bern, N. C.  
Dennis, Billy Vernon (B.A., Hendrix College), Lexa, Ark.  
Dennis, William Lee (A.B., Florida Southern College), West Palm Beach, Fla.  
Desrosiers, Norman Alfred (A.B., Duke University), Butner, N. C.  
Dickson, Clarence Harley, Jr. (B.S., Davidson College), Coleridge, N. C.  
Dorr, Robert Warren (B.A. and M.A., University of Maryland), Mt. Rainier, Md.  
Dover, Hugh Curtis (B.A., Wake Forest College), Winston-Salem, N. C.
- Ervin, Joe Lane (A.B., High Point College), Stokesdale, N. C.  
Estus, Charles Wilson (A.B., Drury College), Radford, Va.
- Fagan, Carol Brill (B.A., Illinois Wesleyan University), Milwaukee, Wis.  
Fagan, Donald Earl (B.A., Southern Methodist University), Houston, Texas.  
Ferris, Fred I. E. (A.B., Duke University), Scarsdale, New York  
Few, John Francis (A.B., Duke University), Greensboro, N. C.  
Fisher, Albert Fleet (A.B., Duke University), Fairmont, N. C.  
Fisher, Allyn Johnston (B.A., Wesleyan University), Portland, Conn.  
Fitzgerald, Bernard Ray (A.B., Wofford College; University of Edinburg, 1949-50), Charlotte, N. C.



- Fitzgerald, Frank Owen (A.B., High Point College), Kinston, N. C.  
 Fleming, Ralph Lang, Jr. (A.B., Duke University), Portsmouth, Va.  
 Forren, Robert Monroe (A.B., Morris Harvey College), Charleston, W. Va.  
 Foster, Robert Allen (A.B., The Johns Hopkins University), Memphis, Tenn.  
 Fowlkes, Ralph Eugene (A.B., Marshall College), Huntington, W. Va.  
 France, Carl Gailen (B.A., Bethany College), Crewe, Va.  
 Fritz, M. Jolee (B.A., State University of Iowa), Allentown, Pa.
- Garren, Sumpter Reginald (A.B., Wofford College), Myrtle Beach, S. C.  
 Gibbs, James Samuel, Jr. (A.B., Wofford College), Stoneville, N. C.  
 Gibbs, Philip Hamilton (A.B., Wofford College), Dallas, N. C.  
 Gibson, Earl Kay (A.B., Wofford College), Charlotte, N. C.  
 Gibson, Robert Stansill (A.B., Duke University), Rockingham, N. C.  
 Glover, Murrell Kelso (B.A., Bridgewater College; B.D., Duke Divinity School), Burlington, N. C.
- Glover, Robert Keith (A.B., Duke University), Bailey, N. C.  
 Goodrum, William Drayton (A.B., Davidson College), Cornelius, N. C.  
 Goodwin, Ernest Ray (B.S., Birmingham-Southern College), Chalkville, Ala.  
 Goodwin, James William (A.B., Birmingham-Southern College), Camp Cosby, Ala.  
 Gregory, Wyndham Nelson (B.A., Lynchburg College), Richmond, Va.  
 Grose, James Chalmus, Jr. (A.B., High Point College), Statesville, N. C.  
 Groves, David Clayton (A.B., Florida Southern College), Jacksonville, Fla.
- Hackney, Edwin A. (A.B., Duke University), Charlotte, N. C.  
 Haire, Billie Allen (A.B., Wofford College), Spindale, N. C.  
 Haire, Earle Ross (A.B., Emory University), West Jefferson, N. C.  
 Hale, Holland Luther (B.S., East Tennessee State College), Vansant, Va.  
 Hall, James Thomas (A.B., Duke University), High Point, N. C.  
 Hansen, Ernest Paul (B.A., Morningside College), Jasper, Minn.  
 Harrell, Maurice (B.S., University of Houston), Houston, Texas.  
 Hawkins, William Thornton (A.B., Guilford College), Canton, N. C.  
 Heath, Thelma Roxana (A.B., Scarritt College), Benhill, Ga.  
 Hiatt, Emmett Ernest, Jr. (A.B., High Point College), High Point, N. C.  
 Hill, Fred Adam (A.B., Catawba College), Salisbury, N. C.  
 Hinrichs, Conley Kent (A.B., Nebraska Wesleyan University), Hildreth, Neb.  
 Hoagland, Richard Havis (B.S., Washington and Jefferson College), Little Valley, N. Y.  
 Horn, Kenneth Arthur (A.B., Wofford College), Upper Darby, Pa.  
 House, Thomas Holmes (A.B., Evansville College), Bailey, N. C.  
 Howard, Kenneth Weldon (B.A., Southern Methodist University), Waurika, Okla.  
 Howard, Michael Ross (A.B., Duke University), Concord, N. C.  
 Hudgins, Walter Edward (A.B., Duke University), Danville, Va.  
 Huggins, Ernest, Jr. (A.B., The Citadel), Johnsonville, S. C.  
 Hurst, Edwin William, Jr. (B.A., University of North Carolina), Rockingham, N. C.
- Ingram, George Stephen (A.B., Duke University), Jacksonville, Fla.  
 Irvin, Henry Stuart (B.A., University of North Carolina), Aiken, S. C.
- Jeffries, William Mac (B.S., University of Virginia), Washington, D. C.  
 Johnson, Charles E., Jr. (A.B., University of North Carolina), Raleigh, N. C.  
 Johnson, Jeremiah Frank (A.B., High Point College), Winston-Salem, N. C.  
 Johnson, Kenneth Marshall (B.S., Davidson College), Charlotte, N. C.  
 Johnson, Walter Russell (A.B., Atlantic Christian College), Robersonville, N. C.
- Kayler, Ralph Earl (A.B., Duke University), Gastonia, N. C.  
 Kelley, Pearlye Maye (A.B., M.A., Scarritt College), Newnan, Ga.  
 Kincaid, E. Lamar (B.A., Wake Forest College), Greensboro, N. C.  
 Kincaid, John J. Pershing (A.B., High Point College), Greensboro, N. C.  
 Kirby, Wallace Hines (B.S., University of North Carolina), Roxboro, N. C.  
 Knipmeyer, Arlie Charles (A.B., Duke University), Bellflower, Mo.  
 Knotts, Albert Ray, Jr. (B.S.E., Princeton University), Nottoway, Va.
- Lackey, John Robert (A.B., Elon College), Elon College, N. C.  
 Lambert, Wilson Sharpe (B.A., Millsaps College), Jackson, Miss.  
 Langford, Thomas Anderson (A.B., Davidson College), Charlotte, N. C.  
 Lawson, Arvest N. (B.A., Hendrix College), Calico Rock, Ark.  
 Lawson, Marvest (B.A., Henderson State Teachers' College), Calico Rock, Ark.  
 Layfield, Pearce Hudson (D.D.S., Emory University School of Dentistry), La Grange, Ga.  
 Lazar, Julian Hampton (A.B., Wofford College), Florence, S. C.  
 Lee, Robert Edward (B.A., Randolph-Macon College), Richmond, Va.  
 Lemaster, Homer Lefew (B.A., Emory and Henry College), Martinsburg, W. Va.  
 Little, Gene Houston (A.B., Davidson College), Charlotte, N. C.  
 Lowdermilk, Max Kearns (A.B., Duke University), Asheboro, N. C.  
 Luessen, Ezra Assel (B.A., Ohio Wesleyan University), Cincinnati, Ohio.  
 Lytle, Albert Lealon (A.B., Wofford College), Marion, N. C.
- McClure, Bruce Eugene (B.S., Indiana University), Indianapolis, Ind.  
 McLeod, Halcombe Guice (B.A., State Teachers College), Jackson, Ala.  
 McIntyre, Lucy Louise (B.A., Macalester College), Minneapolis, Minn.  
 McKenzie, George Robert, Jr. (A.B., High Point College), Wilmington, N. C.  
 McWhorter, John Lloyd (A.B., Duke University), Waxhaw, N. C.  
 Mah, Kyung Il (B.D., Korean Methodist Seminary), Pusan, Korea.  
 Maness, Charles McKinley, Jr. (B.A., University of North Carolina), Durham, N. C.

- Marsh, Donald Frederick (A.B., Nebraska Wesleyan University; Garrett Biblical Institute, 1951), Archer, Neb.
- Martin, James Granville (B.A., Southern Methodist University), Ft. Worth, Texas.
- Mashburn, Dwight Winfred (A.B., High Point College), Highfalls, N. C.
- Masters, Lurley Doyle (B.S., Tennessee Polytechnic Institute), Livingston, Tenn.
- Matheson, James Leonard (A.B., Duke University), Mount Gilead, N. C.
- Medlin, Boyce Conway (B.A., Wake Forest College), Durham, N. C.
- Miller, Raymond Robert (A.B., Bethany College; M.A., Butler University; Ed.D., Indiana University), Durham, N. C.
- Mitchell, Frank Joseph (B.S., Alabama Polytechnic Institute), Fairfield, Ala.
- Montfort, Russell Thompson (B.A., Kentucky Wesleyan College), Crestwood, Ky.
- Moore, Raymond Ledbetter II (A.B., West Virginia Wesleyan College), Fairmont, W. Va.
- Mullins, Harold Stanley (A.B., Birmingham-Southern College), Chatom, Ala.
- Nees, Forrest Glenn (B.A., Ohio Wesleyan University), Akron, Ohio.
- Nelson, Earl Volney (B.A., Baker University), Fort Dodge, Iowa.
- Ogle, George Ewing (B.A., Maryville College), Pitcairn, Pa.
- Owen, John Malloy, III (B.S., Davidson College), Fayetteville, N. C.
- Owens, Charles Edward (B.S., Texas A. & M. College), Brookston, Texas.
- Pate, Robert Bruce (A.B., Duke University), LaGrange, N. C.
- Payne, Howard Talley (B.A., Millsaps College), Pelahatchie, Miss.
- Pennizar, Charles Franklin (A.B., Catawba College), Franklinville, N. C.
- Pfister, John William (B.A., Baker University), Kansas City, Mo.
- Pledger, Bennie Edward (B.A., Wake Forest College), Wake Forest, N. C.
- Plyhon, George Frank, Jr. (A.B., Morris Harvey College), Marmet, W. Va.
- Polley, Max Eugene (A.B., Albion College), Buchanan, Mich.
- Pollock, Henry Morrison (A.B., Ashbury College), Asheboro, N. C.
- Porter, George Dewey, Jr. (B.S., Marshall College), Huntington, W. Va.
- Ramsey, Vernon Jerome (A.B., Catawba College), Salisbury, N. C.
- Randolph, Charles Wesley (A.B., Elon College), Elmwood, N. C.
- Reagan, Ernest McDowell, Jr. (B.A., University of North Carolina), Weaverville, N. C.
- Rieh, William Alfred (A.B., Elon College), Graham, N. C.
- Richardson, Charles Holt (B.A., Southern Methodist University), Lenapah, Okla.
- Richards, James Perry (B.A., East Carolina College), Washington, N. C.
- Robertson, Richard Norris (A.B., Birmingham-Southern College), Talladega, Ala.
- Rollins, Donald Edward (A.B., High Point College), Lexington, N. C.
- Rush, James Wallace (B.A., Randolph-Macon College), McGaheysville, Va.
- Schores, Daniel Mortimer, Jr. (A.B., Central College), Overland, Mo.
- Schuler, Thomas Wilburn (A.B., Morris Harvey College), Charleston, W. Va.
- Scroggs, Robin Jerome (B.A., B.M., University of North Carolina), Raleigh, N. C.
- Seawell, William Albright (A.B., Elon College), Snow Camp, N. C.
- Sell, L. Margaret (A.B., Duke University), Siler City, N. C.
- Selstad, Robert Arney (B.S., University of Houston), Houston, Texas.
- Sexton, Kenneth Bryan (B.S., North Carolina State College), Enfield, N. C.
- Sharp, Raymond Joseph (B.A., Waynesburg College), Mays Landing, N. J.
- Shelton, Wayne Gowan (A.B., High Point College), Mt. Airy, N. C.
- Shepherd, Douglas Nelson (A.B., Duke University), Huntington, W. Va.
- Sherman, William Welby, Jr. (Dickinson College), Baltimore, Md.
- Shoaf, Early Clifford (A.B., High Point College), High Point, N. C.
- Simpson, Robert Truesdale (A.B., Duke University), Rock Hill, S. C.
- Smart, George McCollum (B.A., Randolph-Macon College), Franklin, Va.
- Smith, Frank Ira (A.B., Syracuse University), Vernon, N. Y.
- Smith, George Edwin (A.B., High Point College), Belmont, N. C.
- Smith, Harmon Lee, Jr. (B.A., Millsaps College), Lexington, Miss.
- Smith, Richard Clark (B.A., Vanderbilt University; M.A., Duke University), McKenzie, Tenn.
- Smotherman, Ernest Hermon (B.S., Middle Tennessee State College), Chapel Hill, Tenn.
- Spears, Jimmie Wray (A.B., Morris Harvey College), Glen Ferris, W. Va.
- Stables, Alfred Gray (B.A., Randolph-Macon College), Port Republic, Va.
- Stamey, Ben F. (A.B., Duke University), Lawndale, N. C.
- Stanton, Herbert LeRoy (B.S., University of South Carolina; Candler School of Theology, 1950-51), Columbia, S. C.
- Steele, Thomas Fant (A.B., Wofford College), Rock Hill, S. C.
- Stockett, Thomas Barber (A.B., Davidson College), Winston-Salem, N. C.
- Stradley, Walter McNutt (A.B., Duke University), War, W. Va.
- Swink, Fletcher Wilson (B.A., Randolph-Macon College), Norfolk, Va.
- Swofford, Thomas Hoyle, Jr. (A.B., Duke University), Greensboro, N. C.
- Taylor, Eben (A.B., Wofford College), Charleston, S. C.
- Thomas, Wilbur Edgar (B.A., University of Richmond), Richmond, Va.
- Thompson, Richard David (B.A. and LL.B., University of Maryland), Lutherville, Md.
- Turner, Sterling Deloy, Jr. (B.S., East Tennessee State College), Spring City, Tenn.
- Tyson, Aaron Brandon (A.B., Guilford College), Farmville, N. C.
- Tyson, George Hart (A.B., Duke University), Clinton, N. C.
- Tyson, Joseph Blake (A.B., Duke University), Charlotte, N. C.
- Tyson, Marvin Dewey (A.B., Atlantic Christian College), Hillsboro, N. C.
- Tyson, Tommy (A.B., Duke University), Walstonburg, N. C.

Van Reenen, Albert Cecil, Jr. (A.B., West Virginia University), Bluefield, W. Va.

Waits, William Kenyon, Jr. (B.A., Huntington College), Montgomery, Ala.  
 Wallace, Carl Edison (A.B., Elon College), Greensboro, N. C.  
 Wallace, Robert (A.B., Berea College), Somerset, Ky.  
 Walter, William N. (B.A., Lycoming College), Union Springs, N. Y.  
 Walters, Whitford Frank (B.S. in M.E., Duke University), Greensboro, N. C.  
 Walton, Charles Reginald (B.A., Roanoke College), Roanoke, Va.  
 Wegwart, Wayne Gordon (B.S., Tri-State), Huntington, W. Va.  
 Welch, Donald James (A.B., Union College, Kentucky), Ashland, Ky.  
 White, James Graham, Jr. (A.B., High Point College), Charlotte, N. C.  
 Wier, Frank Edward (B.A., University of Tennessee), Knoxville, Tenn.  
 Wiggers, Charles Campbell (B.A., Millsaps College), Indianola, Miss.  
 Wike, Catherine Shirley (A.B., Duke University), New Bern, N. C.  
 Wilkerson, Albert Ernest, Jr. (A.B., Duke University), Durham, N. C.  
 Wilkinson, Raymond Lee (A.B., Wofford College), Butner, N. C.  
 Williams, Thomas McKendree, Jr. (A.B., Wofford College), Charleston, S. C.  
 Willis, Mason McLaurin (A.B., Wofford College), Fountain Inn, S. C.  
 Wilson, Harold Jackson (A.B., Wofford College), Falls Church, Va.  
 Wilson, William Earl, Jr. (B.A., Randolph-Macon College), Norfolk, Va.  
 Winecoff, George Hoyle (A.B., Erskine College), Concord, N. C.  
 Witherspoon, Loy Hahn (A.B., Duke University), Winston-Salem, N. C.  
 Wyand, Fred B., Jr. (A.B., Marshall College), Durham, N. C.

Yingling, Lewis Carroll, Jr. (A.B., The Johns Hopkins University), Woodlawn, Md.  
 Young, Hugh Claude, Jr. (A.B., Duke University), Charlotte, N. C.  
 Young, Joe Bryant (B.S., University of Houston), Houston, Texas.  
 Young, Russell Lowell, Jr. (A.B., Duke University), N. Wilkesboro, N. C.

Zunes, John Athas (B.S., Virginia Polytechnic Institute), Norfolk, Va.

## *Students Enrolled in the Department of Religion of the Graduate School of Arts and Sciences 1952-1953*

Allen, Ray Maxwell (B.A., Southwestern at Memphis; B.D., Duke Divinity School), Durham, N. C.  
 Carlton, John William (B.A., Baylor University; B.D., Duke Divinity School), Corpus Christi, Texas.  
 Carpenter, James A. (B.A., Wofford College; B.D., Duke Divinity School), Shelby, N. C.  
 Chamberlain, John Victor (A.B., Florida Southern College), Colwyn, Pa.  
 Chandler, John Wesley (B.A., Wake Forest College; B.D., Duke Divinity School), Wake Forest, N. C.  
 Cline, Pervy A. (B.A., Wake Forest College; B.D., Southern Baptist Theological Seminary), Gastonia, N. C.  
 Corpening, Julius H. (B.A., Wake Forest College; B.D., Southern Baptist Theological Seminary), Lancaster, S. C.  
 Daniels, Boyd Lee (A.B., College of Wooster; B.D., McCormick Theological Seminary), Sandusky, Ohio.  
 Davis, Sidney T. (A.B., West Virginia Wesleyan; S.T.B., Boston University School of Theology; M.Ed., University of Pittsburgh), Franklinton, N. C.  
 DeSanto, Pasquale (B.S., Temple University; B.D., Louisville Presbyterian Theological Seminary), Newton Square, Penn.  
 Dunn, Van Bogard (A.B., Murray State College; B.D., Duke Divinity School), Kirksey, Ky.  
 Edwards, George Riley (B.A., Southwestern at Memphis; B.D., Louisville Presbyterian Theological Seminary), Pittsboro, N. C.  
 Hamilton, Harold P. (A.B., High Point College; B.D., Duke Divinity School), Lexington, N. C.  
 Helmbold, F. Wilbur (B.A., Howard College), Springville, Ala.  
 Henry, Stuart C. (B.A., Davidson College; B.D., Louisville Presbyterian Theological Seminary), Concord, N. C.  
 Highfill, W. Lawrence (A.B., Wake Forest College; B.D., Southern Baptist Theological Seminary), Winston-Salem, N. C.  
 Hosea, Addison (A.B., Atlantic Christian College; B.D., University of the South), Clinton, N. C.  
 Mallard, William, Jr. (A.B., Randolph-Macon College; B.D., Duke Divinity School), Durham, N. C.  
 Moody, James M. (B.A., Texas Christian University; B.D., Brite College of the Bible, T.C.U.), College Station, Texas.  
 Pemberton, John (A.B., Princeton University; B.D., Duke Divinity School), Creedmoor, N. C.  
 Perkins, James C. (B.A., Princeton University; B.D., Oberlin School of Theology; Th.M., Oberlin School of Theology), San Antonio, Texas.  
 Richey, McMurry S. (A.B., Duke University; B.D., Duke Divinity School), Houston, Texas.  
 Score, John N. R. (A.B., Southwestern University; B.D., Garrett Biblical Institute), Dallas, Texas.  
 Spann, Edwin R. (B.A., Peabody College; B.D., Perkins School of Theology, S.M.U.), Nashville, Tenn.  
 Stewart, John W. (A.B., University of Georgia; B.D., Brite College of the Bible, T.C.U.), Carrollton, Texas.  
 Taylor, G. Aiken (A.B., Presbyterian College; B.D., Columbia Theological Seminary), Smyrna, Ga.

Taylor, Kenneth M. (B.A., Florida Southern College; B.D., Duke Divinity School), Miami, Fla.  
 Via, Dan O., Jr. (B.S., Davidson College; B.D., Southern Baptist Theological Seminary), Charlottesville, Va.  
 Wilcox, William George (B.A., Stanford University; M.A., Berkeley Baptist Divinity School; B.D., Union Theological Seminary, New York), Folsom, California.

## *Summer Session 1952*

(WITHOUT DUPLICATION)

Critcher, Martha Cotten (A.B., Greensboro College), Durham, N. C.  
 Fike, Earle William (B.A., Bridgewater College), Circleville, W. Va.  
 Johnson, E. Weldon (B.A., Wake Forest College), Fayetteville, N. C.  
 Kidder, Maurice Arthur (A.B., University of New Hampshire; S.T.B., Boston University School of Theology; S.T.M., Yale Divinity School), Chapel Hill, N. C.  
 Pruyn, Harold Andrew (B.A., Juniata College; M.S., Pennsylvania State College), Raleigh, N. C.  
 Rogers, Edwin William (B.S., University of South Carolina; M.R.E., Emory University), Sumter, S. C.  
 Suggs, Marion Jack (A.B., University of Texas; B.D., Texas Christian University), Gladewater, Texas.  
 Williams, Jack (B.A., Millsaps College), Lexington, Miss.  
 Zink, Mary Williams (B.A., Queens College), Bayside, N. Y.

## *Enrollment Summary*

Divinity School students, 231; Graduate School students, 29; Summer Session students (without duplication), 9. Total: 269.

### INSTITUTIONS REPRESENTED

Duke University, 52; Wofford College, 21; High Point College, 16; Wake Forest College, 12; Davidson College, 9; University of North Carolina, 9; Randolph-Macon College, 8; Elon College, 6; Morris Harvey College, 6; Emory University, 5; Millsaps College, 5.

The following 4 each: Birmingham-Southern College, Catawba College, Florida Southern College, Southern Baptist Theological Seminary, Southern Methodist University.

The following 3 each: Atlantic Christian College, Johns Hopkins University, Louisville Presbyterian Theological Seminary, Marshall College, Princeton University, University of Houston.

The following 2 each: Baker University, Bethany College, Boston University School of Theology, Bridgewater College, Brite College of the Bible (T.C.U.), Dickinson College, East Tennessee State College, Emory and Henry College, Evansville College, Guilford College, Hendrix College, Nebraska Wesleyan University, Ohio Wesleyan University, Scarritt College, Southwestern at Memphis, Tennessee Polytechnic Institute, Texas Christian University, University of Maryland, University of South Carolina, University of Tennessee, West Virginia University, West Virginia Wesleyan College.

The following 1 each: Alabama Polytechnic Institute, Albion College, Asbury College, Baldwin-Wallace College, Baylor University, Berea College, Berkeley Baptist Divinity School, Buena Vista College, Central College, Citadel (The), Clemson Agricultural College, College of the Ozarks, College of Wooster, Columbia Theological Seminary, Concord College, Drury College, East Carolina College, Erskine College, Garrett Biblical Institute, Greensboro College, Hampden-Sydney College, Henderson State Teachers College, Howard College, Huntingdon College, Illinois Wesleyan University, Indiana University, Juniata College, Kentucky Wesleyan College, Korean Methodist Seminary, Lycoming College, Lynchburg College, Macalester College, Maryville College, McCormick Theological Seminary, Middle Tennessee State College, Morningside College, Murray State College, North Carolina State College, Oberlin School of Theology, Peabody College, Pennsylvania State College, Perkins School of Theology (S.M.U.), Presbyterian College, Queens College, Roanoke College, Southwestern University, Stanford University, State Teachers College (Ala.), State University of Iowa, Syracuse University, Temple University, Agricultural and Mechanical College of Texas, Tri-State College, Union College (Kentucky), Union Theological Seminary (N.Y.), University of Florida, University of Georgia, University of Missouri, University of New Hampshire, University of Pittsburgh, University of Richmond, University of the South, University of Texas, University of Virginia, Vanderbilt University, Virginia Polytechnic Institute, Washington and Jefferson College, Waynesburg College, Wesleyan University, William Jewell College, Yale Divinity School.

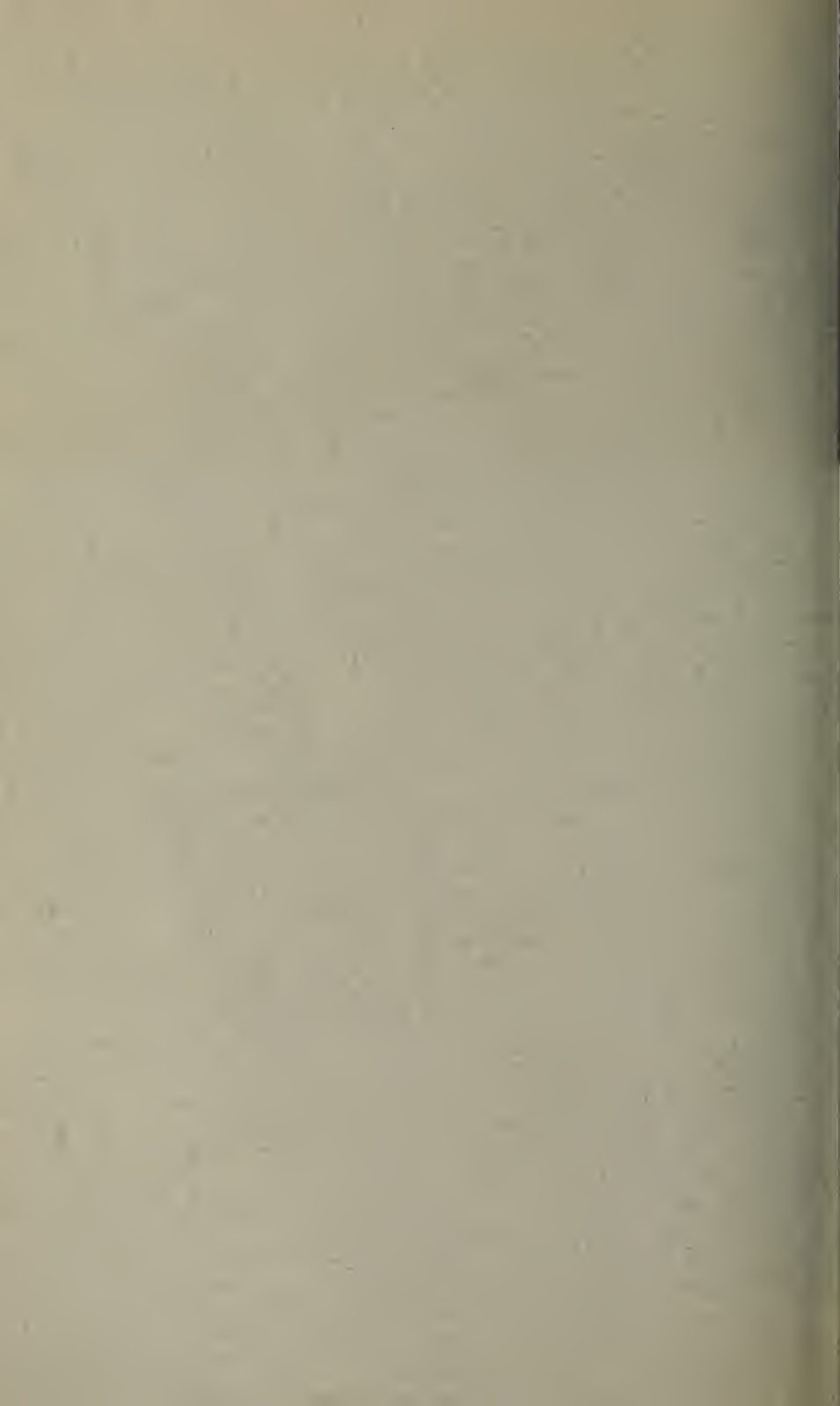
Total number of institutions represented: 115.











**BULLETIN**  
**OF**  
**DUKE UNIVERSITY**



**Catalogue Number**

**1952-1953**

**ANNOUNCEMENTS FOR 1953-1954**

# Annual Bulletins

For GENERAL BULLETIN of Duke University, apply to *The Secretary*, Duke University, Durham, N. C.

For BULLETIN OF UNDERGRADUATE INSTRUCTION, apply to *The Secretary*, Duke University, Durham, N. C.

For BULLETIN OF THE COLLEGE OF ENGINEERING, apply to *The Secretary*, Duke University, Durham, N. C.

For BULLETIN OF THE GRADUATE SCHOOL OF ARTS AND SCIENCES, apply to *The Dean of the Graduate School*, Duke University, Durham, N. C.

For BULLETIN OF THE SCHOOL OF LAW, apply to *The Dean of the School of Law*, Duke University, Durham, N. C.

For BULLETIN OF THE SCHOOL OF MEDICINE, apply to *The Dean of the School of Medicine*, Duke University, Durham, N. C.

For BULLETIN OF THE SCHOOL OF NURSING, apply to *The Dean of the School of Nursing*, Duke University, Durham, N. C.

For BULLETIN OF THE DIVINITY SCHOOL, apply to *The Dean of the Divinity School*, Duke University, Durham, N. C.

For BULLETIN OF THE SCHOOL OF FORESTRY, apply to *The Dean of the School of Forestry*, Duke University, Durham, N. C.

For BULLETIN OF THE SUMMER SESSION, apply to *The Director of the Summer Session*, Duke University, Durham, N. C.

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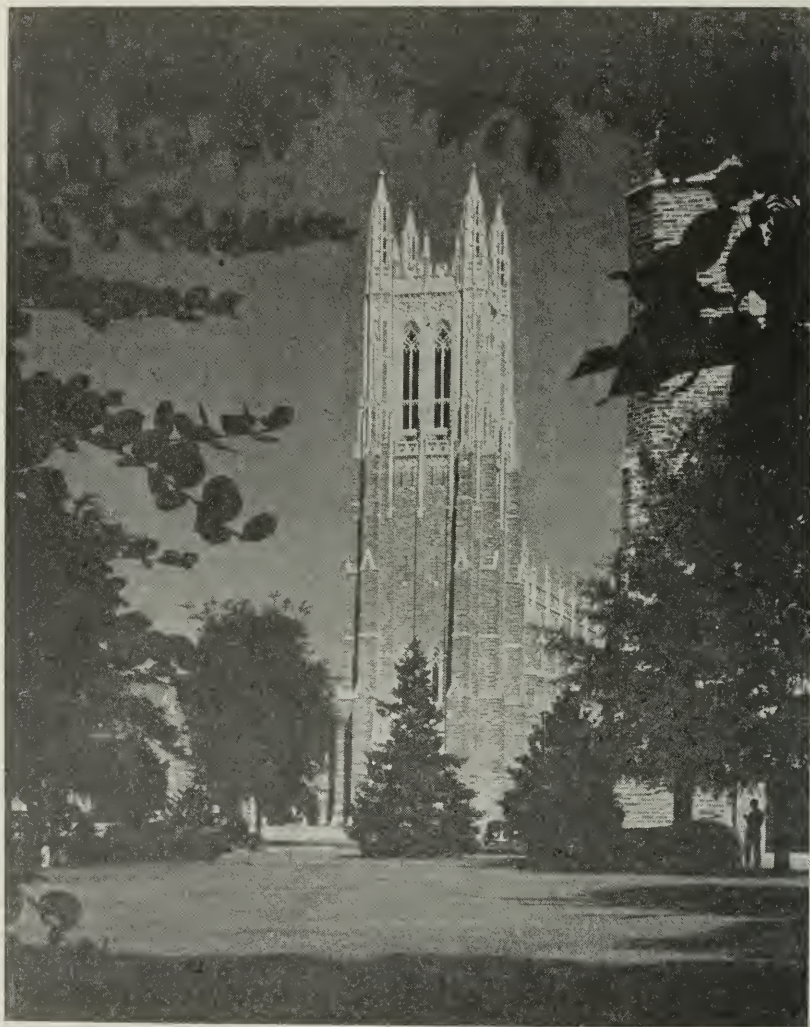
# DUKE UNIVERSITY

GENERAL CATALOGUE



ANNOUNCEMENTS FOR 1953-54





THE CHAPEL

BULLETIN  
OF  
DUKE UNIVERSITY



CATALOGUE NUMBER

1952-1953

ANNOUNCEMENTS FOR 1953-54

DURHAM, NORTH CAROLINA  
1953

“I request . . . that great care and discrimination be exercised in admitting as students only those whose previous record shows a character, determination, and application evincing a wholesome and real ambition for life.”

—JAMES B. DUKE.

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# Calendar of the Colleges

1953

- September 10. Thursday, 9:00 A.M. Dormitories open to freshmen.  
September 10. Thursday, 9:00 A.M. Dormitories open to transfer students entering Trinity College and the College of Engineering.  
September 10. Thursday, 7:30 P.M. Assembly for all entering freshmen; Freshman Orientation begins.  
September 10. Thursday, 7:30 P.M. Assembly for transfer students entering Trinity College and the College of Engineering.  
September 14. Monday. Registration and matriculation of former students of Trinity College and the College of Engineering, who have not pre-registered.  
September 15. Tuesday. Registration and matriculation of new students with advanced standing, Woman's College.  
September 16. Wednesday. Final registration of pre-registered students.  
September 17. Thursday. Instruction begins, fall semester.  
October 27. Tuesday. Junior Examination in English Usage.  
November 9. Monday. Last day for reporting mid-semester grades.  
November 26. Thursday. Thanksgiving Day: a holiday.  
December 11. Friday. Founders' Day.  
December 19. Saturday, 12:30 P.M. Christmas recess begins.

1954

- January 4. Monday, 8:00 A.M. Instruction is resumed.  
January 18. Monday. Mid-year examinations begin.  
January 29. Friday. Mid-year examinations end.  
January 30. Saturday. Registration and matriculation of new students.  
February 1. Monday. Last day for matriculation for the spring semester.  
February 2. Tuesday. Instruction begins, spring semester.  
March 17. Wednesday. Last day for reporting mid-semester grades.  
March 27. Saturday, 12:30 P.M. Spring recess begins.  
April 5. Monday, 8:00 A.M. Instruction is resumed.  
May 24. Monday. Final examinations begin.  
June 3. Thursday. Final examinations end.  
June 5. Saturday. Commencement begins.  
June 6. Sunday. Commencement sermon.  
June 7. Monday. Graduating exercises.

The above is the basic University Calendar, applying more particularly to the Undergraduate Colleges. Variations as affecting the various Schools are included in the catalogue bulletin of such Schools.

# History



Duke University owes its existence to a charitable trust set up by James B. Duke by an Indenture dated December 11, 1924, and known as the Duke Endowment. It is built around Trinity College which was brought to Durham and maintained there largely through the generosity of the Duke family.

Trinity College in its origin goes back to 1838. In that year the citizens of a rural community in the northwest section of Randolph County, North Carolina, established a school with Rev. Brantley York as principal. In 1839 this school was enlarged and named Union Institute. In 1841 it was incorporated by the following enactment of the Legislature of North Carolina:

## *An Act to Incorporate Union Institute Academy:\**

Be it enacted by the General Assembly of the State of North Carolina, and it is hereby enacted by the authority of the same, That Nathan Hunt, Joseph Mendenhall, Joseph Johnson, Lewis Leach, Jabez Leach, Martin W. Leach, and Ahi Robbins, and their successors, are hereby constituted a body corporate and politic to be known and distinguished by the name and style of the Trustees of Union Institute Academy, and by that name shall have succession, and shall be able and capable in law to have, receive and possess lands and tenements, goods and chattels, acquired by gift or otherwise, and use and apply the same according to the will of the donor, or dispose of the same when not forbidden by the terms of the gift. They may sue and be sued, plead and be impleaded in any Court of Justice, and shall have power to fill vacancies in their body, which may occur by death, resignation, or otherwise, establish such laws and regulations for the government of said Institution as they may deem necessary, not inconsistent with the laws of this State, and do and perform all such acts and things as are incident to, and usually exercised for, bodies politic, for the accomplishments of the object contemplated.

Ratified the 12th day of January, 1841.

In the year 1842 Braxton Craven became principal of the school. The growth and development of the school caused the Trustees to plan to put it in direct relation to the educational needs of the public schools of the State. Application was made to the Legislature of North Carolina for a new charter, and on January 28, 1851, Union Institute Academy was incorporated as Normal College by the following enactment:

## *An Act to Incorporate Union Institute, in Randolph County, a Normal College:†*

SECTION 1. Be it enacted by the General Assembly of the State of North Carolina, and it is hereby enacted by the authority of the same, That the present trustees of Union Institute, to-wit: M. W. Leach, Ahi Robbins, Joseph Johnson, James Leach, and C. M. Hines; together with Rev. B. Craven, of said Institute; Hon. A. H. Sheppard, of Salem; John A. Gilmer, Esq., of Greensboro; Col. Samuel Hargrave, of Lexington; J. L. Blackmer, Esq., of Salisbury; Rev. S. A. Andrews, of Greensboro; Dr. S. G. Coffin, of Jamestown; H. B. Elliott, Esq., of Randolph; J. W. Thomas, Esq., of Davidson; John B. Troy, of Randolph; J. P. H. Russ, of Randolph; Eli Russell, of Montgomery, and Gen. J. M. Leach, of Lexington; and their successors be, and they are hereby declared, a body politic and corporate, to be known and distinguished by the name and style of the Normal College, and by that name shall have a perpetual succession, and a common seal, and be able and capable in law, of holding lands, tenements and chattels, sufficient for the uses and purposes of said College, and of suing and being sued, and of pleading and being impleaded.

SEC. 2. Be it further enacted, That said Trustees shall have the power to fix the time of holding the annual and other meetings, and to prescribe the manner in which vacancies in their body may be filled, five Trustees being a quorum to do business.

SEC. 3. Be it further enacted, That the said College shall be under the supervision, management and government of a President and such other persons as said Trustees may appoint; the said President, with the advice of the other persons so appointed, shall from time to time make all needful rules and regulations for the internal government of said College, and fix the number and compensation of teachers to be employed therein, to prescribe the preliminary examinations and the terms and conditions on which pupils shall

\* Laws of North Carolina, 1840-1843.

† Laws of 1850-1851, chapter 20, page 56.

be received and instructed, and the number of pupils to be received from the respective counties.

SEC. 4. Be it further enacted, That said Trustees shall have power to make such rules, regulations and bylaws, not inconsistent with the Constitution of the United States and of this State as may be necessary for the good government of said College, and the management of the property and funds of the same.

SEC. 5. Be it further enacted, That when any pupil shall have sustained a satisfactory examination on the studies, or courses of studies, prescribed by the Faculty and Trustees of said College, such persons shall be deemed qualified to teach common schools and may receive a certificate signed by the President and at least seven Trustees, which certificate shall be sufficient evidence of ability to teach in any of the common schools in this State, without any reexamination of the county committees; and where county certificates are now required before paying out the public funds, the certificate of the Normal College shall answer in lieu thereof.

SEC. 6. Be it further enacted, That the whole College course shall be divided into four classes or degrees, styled first, second, third and fourth, and students shall be ranked accordingly.

SEC. 7. Be it further enacted, That all pupils entering said College shall first sign a declaration, in a book to be kept by the President for that purpose as follows: "We, the subscribers, hereby declare that it is our intention to devote ourselves to the business of teaching common schools in the State of North Carolina, and that our sole object in resorting to this Normal College is the better to prepare ourselves for that important duty," which declaration it shall be the duty of the President to explain to the pupils before they sign the same.

Ratified 28th January, 1851.

On November 21, 1852, the Legislature ratified amendments to the charter of 1851 including changes and additions as follows:

*An Act to Amend an Act, Entitled "An Act to Incorporate Union Institute, in Randolph County, Normal College":\**

SECTION 1. Be it enacted by the General Assembly of the State of North Carolina, and it is hereby enacted by the authority of the same, That J. C. Dobbin, John A. Gilmer, W. H. Washington, A. H. Sheppard, H. B. Elliott, J. M. Leach, Joseph Johnson, S. G. Coffin, A. S. Andrews, Joseph B. Cherry, N. W. Woodfin, B. Craven, James Leach, Calvin Graves, Ahi Robbins, John B. Troy, Robert Strange, John W. Thomas, Samuel Hargrave, J. P. H. Russ, W. M. Leach, W. L. Steele, R. M. Saunders, W. B. Lane, G. W. Caldwell, C. H. Wiley, Jabez Leach, John A. Lillington, J. T. Morehead, Thales McDonald, R. C. Puryear, S. P. Hill, Alexander Gray, James M. Garrett, and Edward Ogburn and their successors be, and they are hereby declared a body politic and corporate to be known and distinguished by the name and style of "The Trustees of Normal College," and by that name and style shall have a perpetual succession and a common seal, and be able and capable in law of holding lands, tenements and chattels for the uses and purposes of said College; and of suing and being sued, and of pleading and being impleaded.

SEC. 2. Be it further enacted, That the Governor of the State shall be *ex-officio* President of the Board of Trustees, and that the common school superintendent, should such an officer exist, shall be *ex-officio* Secretary of the Board, and that all vacancies in the Board shall be filled by a majority of the Trustees of said College.

SEC. 3. Be it further enacted, That the Trustees shall have power of appointing an Executive Committee, to consist of seven members which committee shall control the internal regulations of said College, and fix all salaries and emoluments, and of doing all other things necessary for an institution of learning not inconsistent with the laws of this State and of the United States.

SEC. 4. . . . They shall have also the power to grant such degrees and marks of honor as are given by Colleges and Universities generally.

SEC. 5. Be it further enacted, That the Secretary of the Board of Trustees shall, within ten days after the meeting of each [Legislature] make a full report of the condition and operations of said Normal College, and the general character of Normal instruction; also, the condition and progress of Normal schools generally, together with all other information deemed important in the education of teachers, giving also the names and residencies of all who have been authorized to teach.

SEC. 6. Be it further enacted, That the President and Directors of the literary fund are hereby directed to loan to the Trustees of Normal College, the sum of ten thousand dollars out of any moneys not otherwise appropriated, at six per cent interest, to be paid semiannually, upon said Trustees giving bond and good security for the same.

Under the amended charter authorizing the institution to confer degrees, two students were graduated on July 28, 1853, with the degree of Bachelor of Arts.

In the year 1853-1854 a larger building was erected by means of money lent by the State of North Carolina under the authority granted in the amended charter. In November, 1856, the Trustees of Normal College authorized President Craven to propose to the North Carolina Conference of the Methodist Episcopal Church, South, that the institution be placed under the ownership and control of that body. The Conference passed the following resolution:

\* Laws of 1852-1853, chapter 88, page 161.

1. That the Conference authorize and request the Board of Trustees of Normal College to raise by donations twenty thousand dollars.
2. That all lands and property belonging to the College be conveyed to the Board of Trustees in trust for the North Carolina Conference.
3. That the Conference fill all vacancies in the Board.
4. That the Conference appoint a visiting committee, which committee shall have equal power with the Board as to the internal regulations and operations of the College.

Within the following two years the Trustees arranged to meet all the conditions stipulated. The North Carolina Conference of the Methodist Episcopal Church, South, in consequence, became invested with the complete ownership and control of the College.

On February 16, 1859, the charter was amended and the name of the institution changed to Trinity College by the following enactment of the Legislature of North Carolina:

*An Act to Amend the Charter of Normal College:\**

SECTION 1. Be it enacted by the General Assembly of the State of North Carolina, and it is hereby enacted by the authority of the same, That the corporation established by an act passed in 1852, and known by the style and title of the "Trustees of Normal College," be and the same is hereby changed to Trinity College; and said corporation shall henceforth, by the name and style of Trinity College, hold and use all the authority, privileges, possessions and liabilities it had under the former title and name.

SEC. 2. Be it further enacted, That the estate, real and personal, received and controlled by the Trustees of Trinity College, shall be for the uses and purposes of a literary institution for the North Carolina Conference of the Methodist Episcopal Church, South.

SEC. 3. Be it further enacted, That all vacancies in the Board of Trustees shall be filled by said North Carolina Conference: *Provided, however*, that no person shall be elected a Trustee till he has first been recommended by a majority of the Trustees present at a regular meeting; and the Trustees shall have power to remove any member of their body who may remove beyond the boundaries of the State, or who may refuse or neglect to discharge the duties of a Trustee.

SEC. 4. Be it further enacted, That the Faculty and Trustees shall have the power of conferring such degrees and marks of honor as are conferred by colleges and universities generally; and that five Trustees shall be a quorum to transact business.

SEC. 5. Be it further enacted, That no person shall keep, maintain, or have at Trinity College or within two miles thereof, any tippling-house establishment, or place for the sale of wine, cordials, spiritous or malt liquors; nor shall any person in the State, without a written permission from the Faculty, sell, or offer to sell, give or deliver to any student of Trinity College, or to any other person, any wine, cordials, spiritous or malt liquors for the purpose of being used or with a knowledge that the same will be used at said College, or within two miles thereof, by any student.

SEC. 6. Be it further enacted, That no person shall set up, keep or maintain at Trinity College, (or) within two miles thereof, any public billiard table, or other table, of any kind at which games of chance or skill, by whatever name called, may be played; and that no person, without written permission from the Faculty, shall within the same limits exhibit any theatrical, sleight-of-hand, natural or artificial curiosities, or any concert, serenade, or performance in music, singing or dancing.

SEC. 7. Be it further enacted, That sections second, fourth and fifth of the charter passed in 1852, are hereby repealed, and that all acts and laws coming within the meaning and purview of this present act are hereby repealed.

During the Civil War the College shared the common fate of Southern colleges. President Craven resigned in 1863, and Professor William T. Gannaway was elected his successor. In October, 1865, Dr. Craven was re-elected to the presidency; however, the work of the College, which had been suspended in April of that year, was not resumed till January, 1866. Dr. Craven remained president of the College till his death, November 7, 1881. Professor William Howell Pegram was then elected chairman of the Faculty. He served till the close of the academic year, June, 1883.

The Reverend Marquis L. Wood was elected president in 1883; he resigned in December, 1884, when Professor John F. Heitman was elected chairman of the Faculty. John Franklin Crowell was chosen president of the College in April, 1887.

President Crowell conceived the idea of enlarging the scope of college work and of removing Trinity College to a city. The Board of Trustees on May 7, 1889, passed the following resolutions:

*Resolved* (1). That after mature and prayerful consideration we believe it best for the interest of Methodism in North Carolina, and the cause of God, to move Trinity College to some prominent center within this State: *Provided*, There shall be tendered to this

\* Laws of 1858-1859, chapter 85, page 81.



Board a proper guarantee of a suitable site, with buildings on it, of at least equal value, and as well suited for the use of the College as those on the present site.

*Resolved* (2). That a committee of five be appointed to carry out the true intent of the above resolution, and report to the next annual meeting of the Board of Trustees.

At a meeting of the Trustees held in Greensboro, North Carolina, November 30, 1889, the following resolutions were adopted:

*Resolved* (1). That the Board of Trustees of Trinity College accept the offer of the citizens of Raleigh to erect a college building on the site designated, said building to be according to the plans and specifications mentioned in their offer.

*Resolved* (2). That we recommend the N. C. Annual Conference of the M. E. Church, South, to authorize the removal of Trinity College in accordance with the above and former resolutions passed by this Board.

*Resolved* (3). That the grounds and buildings now owned and used at Trinity College be held by the same Board of Trustees to be used as an academical department to prepare students for the college classes.

In accordance with these resolutions, through President Crowell, the Conference was asked at its session in Greensboro, December, 1889, to grant permission to remove the College to the City of Raleigh. The Conference took the following action:

*Resolved*, That the Board of Trustees of Trinity College be and is hereby authorized and directed to move Trinity College to the City of Raleigh, when the citizens of said city shall have erected on the site designated and known as the Boylan lot, the building proposed and agreed to be built by them *Provided*, That before said college is moved, as aforesaid, there shall be made, executed and delivered to said Trustees a good and sufficient deed in fee simple with proper covenants of warranty and seizin, conveying the lot and site designated to said Trustees and their successors in office, for the use and benefit of the North Carolina Conference, Methodist Episcopal Church, South, as it now exists, and for the use and benefit of such Conferences, as may be hereafter created by the Methodist Episcopal Church, South, out of any territory within the State of North Carolina.

Sometime after this action of the Conference, Washington Duke and other citizens of Durham, North Carolina, made a proposition to the Trustees to locate the College in Durham, and this proposition was accepted. On January 21, 1891, the Legislature of North Carolina issued the following charter:

*An Act to Amend the Charter of Trinity College:*

The General Assembly of North Carolina do enact:

SECTION 1. That the Trustees of Trinity College are authorized and empowered to remove the operations and exercises of said College, and to locate the buildings deemed necessary by them for the purpose of the College, at or near the town of Durham, North Carolina. They may, if they so elect, establish and maintain in connection with said College institutions of primary and intermediate education at the present site of the College in Randolph County, and at such other points as they may now or hereafter determine, for the purpose of preparing students for admission to a collegiate course. The management of such auxiliary and subordinate high schools and academies shall be vested in the said Board of Trustees, who are authorized to make by-laws and regulations for them, as well as for the College proper.

SEC. 2. That the Trustees of Trinity College are authorized to receive and hold by gift, devise or purchase, property, real and personal, to be held for the use of said College and its dependent schools or for the use of either or both (as may be designated in the conveyance or will), (to a value not exceeding in the aggregate sum three millions of dollars).

SEC. 3. That the Trustees shall be thirty-six in number, of whom twelve shall be elected by the North Carolina Conference of M. E. Church, South, twelve by the W. N. C. Conference of said church, and twelve by graduates of said College. The term of office of Trustees shall be six years, and they shall be so arranged that four Trustees shall be elected by each Conference and four by the graduates every two years. The Trustees shall regulate by by-laws the manner of election of the Trustees to be chosen by the graduates. Should there exist a vacancy by death, resignation, or otherwise, of any Trustee, the same shall be filled for the unexpired term by the Board of Trustees. The terms of the Trustees now in office shall expire January first, one thousand eight hundred and ninety-two. At the first election held under this amendment to the Charter, the body of graduates and each of the Conferences shall respectively elect four Trustees for the term of two years; in like manner each of said constituencies shall elect four Trustees for the term of four years, and in like manner each shall elect four Trustees for the term of six years.

In September, 1892, the College opened its first session in the new plant located at Durham. In May, 1894, President Crowell resigned, and on August 1, 1894, the Reverend John C. Kilgo was elected his successor. In May, 1897, the Trustees authorized the admission of women as students to all departments of the College.



On account of the fact that the fundamental laws under which the College was managed were contained in an original charter and in several amendments, it was deemed best by the Board of Trustees, in June, 1902, to appoint a committee to make an application to the Legislature for a new charter, which should unify and harmonize the provisions of the existing legislation. On February 28, 1903, the Legislature of North Carolina granted the new charter which is identical with the charter as found on pages 14-15, except that the corporate name of the institution is changed to Duke University and the corporation is given perpetual existence, an amendment enacted by the General Assembly of North Carolina, January 19, 1911, having already stricken out the limitations set in former charters to the amount of property the College might hold.

Having been elected a bishop of the Methodist Episcopal Church, South, President Kilgo resigned in June, 1910. William Preston Few was elected to succeed him and was formally inaugurated November 9, 1910.

On December 29, 1924, the Board of Trustees of Trinity College met to consider the Indenture of Trust executed by James B. Duke, December 11, 1924. The Board voted unanimously to accept the provisions of the Indenture insofar as it affected Duke University, and authorized the necessary steps to be taken whereby, on December 30, 1924, a charter for the University was granted. The charter follows closely that of Trinity College and is printed on pages 14-15.

President Few died October 16, 1940. Dr. R. L. Flowers was elected President January 29, 1941.

On November 19, 1948, Arthur Hollis Edens was named President to succeed Dr. Flowers, who was made Chancellor on the same day. Chancellor Flowers died August 24, 1951.

Duke University is approved by the recognized accrediting agencies in the field of university education and is a member of various associations devoted to the interests of such education. Among those in which it holds membership are the Association of American Universities, the Southern Association of Colleges and Secondary Schools, the American Association of Colleges, the Southern University Conference, the American Association of Law Schools, the Association of American Medical Colleges, the American Association of Theological Schools, and others.

# Government



## 1. THE INDENTURE OF TRUST BY WHICH THE UNIVERSITY WAS CREATED

Among the provisions of James B. Duke's Indenture of Trust was an educational institution to be known as Duke University, to the building and support of which he made provision at the time of execution of the Indenture and later by additions thereto by the operation of his Will. In respect to Duke University the Indenture contains the following provisions:

I. (In Article FOURTH) The Trustees hereunder are hereby authorized and directed to expend as soon as reasonably may be not exceeding Six Million Dollars of the corpus of this trust in establishing at a location to be selected by them within the State of North Carolina an institution of learning to be known as Duke University, for such purpose to acquire such lands and erect and equip thereon such buildings according to such plans as the Trustees may in their judgment deem necessary and adopt and approve for the purpose to cause to be formed under the laws of such state as the Trustees may select for the purpose a corporation adequately empowered to own and operate such properties under the name of Duke University as an institution of learning according to the true intent hereof, and to convey to such corporation when formed the said lands, buildings and equipment upon such terms and conditions as that such corporation may use the same only for such purposes of such university and upon the same ceasing to be so used then the same shall forthwith revert and belong to the Trustees of this trust as and become a part of the corpus of this trust for all the purposes thereof.

However, should the name of Trinity College, located at Durham, North Carolina, a body politic and incorporate, within three months from the date hereof (or such further time as the Trustees hereof may allow) be changed to Duke University, then, in lieu of the foregoing provisions of this division "FOURTH" of this Indenture, as a memorial to his father, Washington Duke, who spent his life in Durham and whose gifts, together with those of Benjamin N. Duke, the brother of the party of the first part, and of other members of the Duke family, have so largely contributed toward making possible Trinity College at that place, he directs that the Trustees shall expend of the corpus of this trust as soon as reasonably may be a sum not exceeding Six Million Dollars in expanding and extending said University, acquiring and improving such lands, and erecting, removing, remodeling and equipping such buildings, according to such plans, as the Trustees may adopt and approve for such purpose to the end that said Duke University may eventually include Triinty College as its undergraduate department for men, a School of Religious Training, a School for Training Teachers, a School of Chemistry, a Law School, Co-ordinate College for Women, a School of Business Administration, a Graduate School of Arts and Sciences, a Medical School and an Engineering School, as and when funds are available.

II. (In Article FIFTH) Thirty-two per cent of said net amount not retained as aforesaid for addition to the corpus of this trust shall be paid to that Duke University for which expenditures of the corpus of the trust shall have been made by the Trustees under the "Fourth" division of this Indenture so long as its name shall be Duke University and it shall not be operated for private gain, to be utilized by its Board of Trustees in defraying its administration and operating expenses, increasing and improving its facilities and equipment, the erection and

enlargement of buildings and the acquisition of additional acreage for it, adding to its endowment or in such other manner for it as the Board of Trustees of said institution may from time to time deem to be of its best interests, provided that in case such institutions shall incur any expense or liability beyond provisions already in sight to meet same, or in the judgment of the Trustees under this Indenture be not operated in a manner calculated to achieve the results intended hereby the Trustees under this Indenture may withhold the whole or any part of such percentage from said institution so long as such character of expense or liabilities or operation shall continue, such amounts so withheld to be in whole or in part either accumulated and applied to the purposes of such University in any future year or years, or utilized for the other objects of this Indenture, or added to the corpus of this trust for the purpose of increasing the principal of the trust estate, as the Trustees may determine.

III. (In Article SEVENTH) I have selected Duke University as one of the principal objects of this trust because I recognize that education, when conducted along sane and practical, as opposed to dogmatic and theoretical lines, is, next to religion, the greatest civilizing influence. I request that this institution secure for its officers, trustees, and faculty, men of such outstanding character, ability, and vision as will insure its attaining and maintaining a place of real leadership in the educational world, and that great care and discrimination be exercised in admitting as students only those whose previous record shows a character, determination, and application evincing a wholesome and real ambition for life. And I advise that the courses at this institution be arranged, first, with special reference to the training of preachers, teachers, lawyers and physicians, because these are most in the public eye, and by precept and example can do most to uplift mankind, and second, to instruction in chemistry, economics, and history, especially the lives of the great of earth, because I believe that such subjects will most help to develop our resources, increase our wisdom and promote human happiness.

IV. (In Article THIRD) As respects any year or years and any purpose or purposes for which this trust is created (except the payments hereinafter directed to be made to Duke University) the Trustees in their uncontrolled discretion may withhold the whole or any part of said incomes, revenues and profits which would otherwise be distributed under the "Fifth" division hereof, and either (1) accumulate the whole or any part of the amount so withheld for expenditures (which the Trustees are hereby authorized to make thereof) for the same purpose in any future year or years, or (2) add the whole or any part of the amounts so withheld to the corpus of the trust, or (3) pay, apply and distribute the whole or any part of said amounts to and for the benefit of any one or more of the other purposes of this trust, or (4) pay, apply and distribute the whole or any part of said amounts to or for the benefit of any such like charitable, religious or educational purpose within the State of North Carolina or the State of South Carolina, or any such like charitable hospital purpose which shall be selected therefor by Trustees called for the purpose, complete authority and discretion in and for such selection and utilization being hereby given the Trustees in the premises.

## 2. THE CHARTER OF THE UNIVERSITY

SECTION 1. That A. P. Tyer, J. H. Southgate, B. N. Duke, G. A. Oglesby, V. Ballard, J. A. Long, J. F. Bruton, J. N. Cole, F. A. Bishop, J. G. Brown, C. W. Toms, J. W. Alspaugh, W. R. Odell, J. A. Gray, F. Stikeleather, Kope Elias, S. B. Turrentine, P. H. Hanes, T. F. Marr, G. W. Flowers, M. A. Smith, R. H. Parker, W. J. Montgomery, F. M. Simmons, O. W. Carr, R. A. Mayer, N. M. Jurney, Dred Peacock, B. B. Nicholson, W. G. Bradshaw, E. T. White, T. N. Ivey, J. B. Hurley, R. L. Durham, W. C. Wilson, and their associates and successors shall be, and continue as they have been, a body politic and corporate under the name and style of DUKE UNIVERSITY, and under such name and style shall have perpetual existence and are hereby invested with all the property and rights of property which now belong to the said corporation, and said corporation shall henceforth and perpetually, by the name and style of DUKE UNIVERSITY, hold and use all the authority, privileges, and possessions it had or exercised under any former title and name, and be subject to all recognized legal liabilities and obligations now outstanding against said corporations.

SEC. 2. That such corporation is authorized to receive and hold by gift, devise, purchase or otherwise, property, real and personal, to be held for the use of said University and its dependent schools or for the use of either or both (as may be designated in the conveyance or will).

SEC. 3. That the Trustees shall be thirty-six in number, of whom twelve shall be elected by the North Carolina Conference of the M. E. Church, South; twelve by the W. N. C. Conference of the said church; and twelve by the graduates of said University; *Provided, however,* That no person shall be elected a Trustee till he has first been recommended by a majority of the Trustees present at a regular meeting; and the Trustees shall have power to remove any member of their body who may remove beyond the boundary of the State or who may refuse or neglect to discharge the duties of a Trustee. The term of office of Trustees shall be six years, and they shall be so arranged that four Trustees shall be elected by each Conference and four by the graduates every two years. The Trustees shall regulate by bylaws the manner of election of the Trustees to be chosen by the graduates. Should there exist a vacancy by death, resignation, or otherwise of any Trustee, the same shall be filled for the unexpired term by the Board of Trustees. That the present Trustees shall continue and remain in office during the term for which they have been heretofore respectively elected.

SEC. 4. That the said corporation shall be under the supervision, management and government of a president and such other persons as said Trustees may appoint; the said president, with the advice of other persons so appointed, shall from time to time make all needful rules and regulations for the internal government of said University and prescribe the preliminary examinations and terms and conditions on which pupils shall be received and instructed.

SEC. 5. That said Trustees shall have power to make such rules, regulations, bylaws not inconsistent with the Constitution of the United States and of this State, as may be necessary for the good government of said University and management of the property and funds of the same.

SEC. 6. That the Trustees shall have power to fix the time of holding their annual and other meetings, to elect a president and professors for said University, to appoint an executive committee to consist of seven members, which committee shall control the internal regulations of said University and fix all salaries and emoluments, and to do all other things necessary for an institution of learning not inconsistent with the laws of this State and of the United States.

SEC. 7. That the Faculty and Trustees shall have the power of conferring such degrees and marks of honor as are conferred by colleges and universities generally; and that five Trustees shall be a quorum to transact business.

SEC. 8. That all laws and parts of laws or of the charter heretofore granted which are in conflict with this act are hereby repealed.

SEC. 9. That this act shall be in force from and after its ratification and acceptance by the Board of Trustees.

### 3. THE BYLAWS OF THE UNIVERSITY

1. **AIMS OF THE UNIVERSITY.** The aims of Duke University are to assert a faith in the eternal union of knowledge and religion set forth in the teachings and character of Jesus Christ, the son of God; to advance learning in all lines of truth; to defend scholarship against all false notions and ideals; to develop a Christian love of freedom and truth; to promote a sincere spirit of tolerance; to discourage all partisan and sectarian strife; and to render the largest permanent service to the individual, the state, the nation, and the church. Unto these ends shall the affairs of this University always be administered.

2. **THE UNIVERSITY TRUSTEES, THEIR MEETINGS AND THEIR OFFICERS.** The Alumni Trustees, nominated by the Board as provided for in the Charter, are elected by the Alumni Association. The officers of the Board are chairman, vice-chairman, and recording secretary. They are elected by the Trustees at their annual meeting to serve one year or until their successors are elected and qualify. The chairman calls to order and presides at all meetings of the Board, calls extraordinary



meetings when, in his judgment, such meetings may be necessary, and represents the Trustees at public meetings of the University. He is ex-officio member of the Executive Committee. In the absence of the chairman, the vice-chairman calls to order and presides over meetings of the Board, but does not perform any of the other duties of the chairman unless ordered to do so by the Board or the Executive Committee. The recording secretary records the minutes of all the meetings, does the correspondence, and is the custodian of the records and other documents that may belong to the Board.

3. **THE EXECUTIVE COMMITTEE.** The Executive Committee consists of seven members, three of them from the University Trustees, including the chairman of the Board ex-officio, three from the Endowment Trustees, and the President of the University ex-officio. It performs the duties set out for it in the charter—namely, controls the internal regulations of the University and fixes all salaries and emoluments. It has all the powers of the Board of Trustees in the interims between meetings of the Board of Trustees except the nomination of Trustees and election of members of the Executive Committee; however, appointment of officers of the University by the Executive Committee is subject to the approval of the University Trustees. The Executive Committee is expressly empowered to appoint an Investment Committee and to give to such Committee such powers and duties, as in the judgment of the Executive Committee, may seem fit. The Executive Committee is elected by the University Trustees, three of them on nomination of the Endowment Trustees, and the Committee elects its own officers who are chairman and recording secretary. It meets once a month (unless otherwise determined by the Committee) and oftener when necessary and by its own resolution sets its time and date of meetings except that special meetings are called by its chairman upon three or more days written or telegraphic notice to the members of the Committee. The Committee, through its chairman, once a year makes a report to the annual meeting of the University Trustees.

4. **OFFICERS OF THE UNIVERSITY.** The officers of the University are a president, three vice-presidents, a business manager and comptroller, a treasurer, a bursar, a dean of the University, and such other deans as may be needed, a recording dean or registrar, and a secretary who is also secretary of the faculty. There may also be a chancellor and a vice-chancellor. Whenever it may seem wise, one person may hold more than one office.

**PRESIDENT.** The President of the University calls, and presides at, all the meetings of the Faculties except as otherwise provided in these bylaws, and sees that the laws and regulations of the Executive Committee and the Trustees affecting the administration and work of the University are carried out. He has direction of the discipline and work of the University and, except as otherwise provided in these bylaws, appoints all committees of the Faculties. Anything in these bylaws to the contrary notwithstanding, the President may veto any action of any faculty or committee or agency thereof. However, in every instance he shall submit to the appropriate faculty, committee or agency in writing his reasons for setting aside their action, and the secretary of such Faculty shall record his reasons in the record book of such Faculty. The President makes an annual report to the Board of the work, conditions, and needs of the University, and of other matters that may be of concern to it or to the cause of higher education. He nominates all members of the Faculties, and represents them at all public meetings of the University. He is an ex-officio member of the Executive Committee and acts, unless the Trustees designate the Chancellor of the University for the purpose, as a medium of communication between the University Trustees and the Endowment Trustees.

**CHANCELLOR.** There may be a Chancellor of the University. If the Trustees appoint such an officer, he shall be selected for this office because of his long and faithful service to the University. Such an officer, if appointed, is a high officer of the University. He may be designated by the Trustees as the medium of communication between the University Trustees and the Endowment Trustees and when he is so designated the President does not act in such a capacity. He is available, when requested by the President, to render all possible services in an advisory capacity. He has such other duties as may, from time to time, be delegated to him by the Trustees.



**VICE-CHANCELLOR.** There may be a Vice-Chancellor of the University. If the Trustees appoint such an officer he shall be selected because of his long and faithful service to the University. When requested by the Chancellor, he performs the duties designated to the Chancellor by the Trustees. He is available, when requested by the Chancellor or President, to render all possible services in an advisory capacity. He also has such other duties as, from time to time, may be delegated to him by the Trustees.

**VICE-PRESIDENTS.** The three Vice-Presidents of the University have supervision of the work of the University in the divisions of (a) education, (b) public relations, and (c) student life. In the absence of the President, Vice-Presidents, in the above order, may perform such duties of the President as may demand immediate attention.

**BUSINESS MANAGER AND COMPTROLLER.** The Business Manager, who is also Comptroller, has the custody of all property of the University. He is responsible to an administrative committee and through such committee to the Trustees either directly or through the Executive Committee for all matters pertaining to the business affairs of the University except the investment of funds and is required to make monthly reports through such administrative committee to the Executive Committee and annual reports through the administrative committee to the Trustees concerning his accounts and the property in his charge. Such administrative committee is composed of not less than three nor more than five persons, three of whom are the President of the University, as chairman, the Business Manager and Comptroller, and a Vice-President selected from time to time by the Trustees or the Executive Committee. The Executive Committee has power to determine the number, of any, of additional members, up to the limit set, to be added to or removed from membership in the committee and in their judgment to make selection of the persons to be so added or so removed. The Business Manager and Comptroller annually prepares or causes to be prepared a Budget of expected Receipts and Disbursements and submits same to the Executive Committee for their approval. Upon such approval, he is primarily responsible for the operation of the Budget. He nominates to the Executive Committee any and all assistants required by him to do well the duties of his office. The Business Manager and Comptroller shall be required to give bond in such amount as may be designated by the Trustees or the Executive Committee for the faithful performance of his duties.

**TREASURER.** The Treasurer has primary responsibility for the care and custody of all securities and for the financial records of the University. He makes an annual report of his accounts to the Trustees and such reports, as from time to time, may be required of him by the Executive Committee. He also makes to the Business Manager and Comptroller monthly reports and oftener when required. He nominates to the Executive Committee any and all assistants required by him to do well the duties of his office including the nomination of a Bursar and Assistant Treasurer or Treasurers which officers and assistants shall primarily be responsible to him. The Treasurer and his assistants shall be required to give bond in such amount as may be designated by the Trustees or the Executive Committee for the faithful performance of their duties.

**BURSAR.** The Bursar has primary responsibility for all collections and disbursements. He is nominated by and responsible to the Treasurer to whom he makes such reports as the Treasurer from time to time requires of him. The Bursar shall be required to give bond in such amount as may be designated by the Trustees or the Executive Committee for the faithful performance of his duties.

**SECRETARY.** The Secretary of the University has custody of the corporate seal of the University and affixes and attests same when circumstances require and the Trustees or the Executive Committee so direct. He is also secretary of the Faculty, attends its meetings and makes permanent records of actions and transactions at such meetings. He has such other duties and responsibilities as his title suggests and may, from time to time, be delegated to him by the appropriate authorities.

5. **FACULTIES.** The University Faculty is composed of:

- (a) The President and the Secretary of the University and such officers designated by the President as primarily responsible for instruction and research; and
- (b) All persons of the rank of full instructor and above who are engaged in work for which recognized University degrees are awarded, and also members of the faculty emeriti.

The University Faculty in cooperation with the President and officers of the University, is responsible for the conduct of instruction and research in the various schools and colleges of the University.

In furtherance thereof this faculty:

- (a) Enacts such regulations as it deems necessary to carry on instruction and research, promote faculty and student welfare, advance the standard of work and otherwise develop the scholarly aims of the University;

- (b) Recommends to the University Trustees:

- (1) Such persons as it deems fit to receive degrees or other marks of distinction; and

- (2) The establishment of any new degree or diploma:

- (c) Consults with and advises the President on matters of general University policy within its competence, in order to assist him in carrying out his duties as the chief administrative officer of the University and as the means of communication between the Trustees and the administrative officers and Faculty;

- (d) Receives such information on the affairs of the University as is necessary for the exercise of its functions;

- (e) Subject to the reserved power of control by the Trustees and the President, determines policies to which the faculties of all schools and colleges and all committees and councils thereof are expected to conform;

- (f) In extraordinary circumstances, when normal channels of communication are not available, may by formal action request a conference between its representatives and representatives of the Board of Trustees or of the Executive Committee of the University. Under normal conditions the President of the University is the liaison between the University Faculty and the governing boards of the University or the committees thereof;

- (g) Has as its Chairman the President of the University and as its Secretary the Secretary of the University;

- (h) Meets regularly in October and February and before the June commencement; meets at other times on the call of the President or of the Vice-President in the Division of Education, or on the written request of twenty members. At the first meeting of each year the Faculty receives from the President a report on the state of the University;

- (i) May exercise its functions through such committees as it may choose to set up. The University Council is a standing committee of the Faculty, subject to its regulations under these bylaws.

The University Council consists of fifteen members as follows: The President of the University; the Vice-President in the Division of Education; three persons, who need not be members of the University Faculty, appointed annually by the President; and ten members elected from and by the University Faculty. The Faculty members are selected from the schools and colleges as follows: from the School of Medicine and the School of Nursing, one member; from the Divinity School, the School of Forestry, and the School of Law, one member; from the College of Engineering, Trinity College and the Woman's College, and the Graduate School of Arts and Sciences, three members; and from the University Faculty at large, five members. The members are elected by such methods and for such terms as the University Faculty may by regulation prescribe.

The Council has three officers: A Chairman who normally presides; a Vice-Chairman who presides in the absence of, or at the request of, the Chairman; and a Secretary. The President of the University is ex-officio Chairman of the Council. The Council elects annually by ballot the Vice-Chairman and Secretary from the Faculty members of the Council. The three officers constitute an agenda committee and appoint members of committees set up by the Council in cases

where membership is not otherwise prescribed by Council action. Faculty members and officers of the University who are not Council members may serve on Council Committees. The Council meets at such times as it elects. Special meetings are called by the Chairman, by the Vice-Chairman, or, at the request of three of its members, by the Secretary. A majority of the members shall constitute a quorum.

The University Council serves as an advisory body on matters of general University policy and interest.

Through the University Council the President endeavors to keep the University Faculty informed upon major matters of University policy, and expects the Council to bring to his attention any matters affecting the general interests and policies of the University.

In the exercise of its advisory function the Council, at the request of the President, a faculty or department, or any individual of the faculties or administration, or on its own initiative, may:

- (i) Consider any subject within its competence and report recommendations thereon to the President or to the University Faculty;
- (ii) Study and report to the President or to the University Faculty on matters within its competence relating to any division of the University subject to the jurisdiction of the President or University Faculty, whenever the Council, by a three-fourths vote, decides that such study is in the best interests of the University.

The Council makes periodic reports in writing to the University Faculty on its activities.

The Undergraduate Faculty Council is composed of: The President of the University; the Vice-Presidents of the Divisions of Education and Student Life; the Secretary of the University; the Dean of Undergraduate Studies; the Deans, Associate Deans, and Assistant Deans of Trinity College, the Woman's College and the College of Engineering; the University Librarian; the Director of the Summer Session; the Directors of Admissions; the Director of the Bureau of Testing and Guidance; and the Chairman and Director of Undergraduate Studies of each department in the above college. Any department which has more than five full-time teaching staff members shall elect one additional member to the Council; any department which has more than ten such staff members shall elect a total of two additional members to the Council. The President in his discretion may appoint not more than five additional voting members.

The Vice-President in the Division of Education, or his deputy, serves as Chairman of the Council. The Council may provide for such standing or special committees, including an executive committee, as it deems necessary. Membership on committees of the Council is not restricted to Council members. The Council normally meets once each month during the academic year. Special meetings are called by the Chairman and on the written request of five members of the Council.

The functions of the Council, subject to the regulations of the University Faculty, are:

- (a) To consider the broad objectives of undergraduate education;
- (b) To encourage the achievement and maintenance of high standards of teaching and scholarship in the undergraduate colleges;
- (c) To legislate on questions of curriculum for the undergraduate colleges of arts and sciences;
- (d) To adopt regulations concerning matters affecting the academic life of students in the undergraduate colleges, and to integrate the details of educational and related interests of those colleges.

In the exercise of its functions, the Council receives information on such matters as student aid, admissions and student life.

The Graduate School Faculty is composed of the President of the University; the Vice-President in the Division of Education; the Dean of the Graduate School; officers of the Graduate School; the Director of the Summer Session; the University Librarian; and all full-time faculty members of the rank of assistant professor and above who are approved to offer graduate work or to supervise the research work of graduate students registered in the Graduate School.

The Dean of the Graduate School, or his deputy, serves as Chairman of the Graduate School Faculty. A Secretary is appointed by the President.

There is an Executive Committee consisting of the Dean of the Graduate School and members elected by and from the Graduate School in accordance with regulations prescribed by the Graduate School Faculty. This Committee serves in an advisory and consultative capacity and discharges specific duties delegated to it by the Graduate School Faculty.

The Graduate School Faculty meets twice each semester. Additional meetings may be called by the Chairman or on the written request of five members. The Executive Committee normally meets once each month but not less than six times during each academic year.

The functions of the Graduate School Faculty, subject to the regulations of the University Faculty, are:

- (a) To establish the standards of graduate work and the requirements for degrees in the Graduate School of Arts and Sciences;
- (b) To study and enact the necessary regulations governing courses of graduate instruction and graduate research;
- (c) To determine policies to be followed in dealing with other educational matters arising in the Graduate School of Arts and Sciences.

The Engineering Faculty Council consists of the President of the University; the Vice-President in the Division of Education; the Dean of the College of Engineering; the Dean of Undergraduate Studies; the Secretary of the Council; the Chairman and one additional representative from each department of Engineering; and three members from the University Faculty representing departments in which engineering students are required to take work. The Secretary and the three Faculty members from outside the College of Engineering are appointed annually by the President.

The Dean of the College of Engineering serves as Chairman of the Council. The Council normally meets once each month; additional meetings are called by the Chairman or on the written request of five Council members.

The Council considers and, subject to regulations of the University Faculty, legislates on questions of curricula and adopts regulations concerning those educational, professional, and administrative matters pertaining exclusively to the College of Engineering.

Each of the professional Schools of the University has its own faculty.

The President of the University, the Vice-President in the Division of Education, and all members of the University Faculty in each professional school are members of the faculty of that school.

The Dean of each professional school, or his deputy, serves as chairman of the Faculty of that school. Each faculty arranges details of its organization to fit its particular needs, observing the general principles of representation, freedom of discussion and democratic procedures.

The functions of each professional school faculty, subject to the regulations of the University Faculty, are to legislate on its curriculum and programs of work and to adopt regulations on the educational and administrative activities of that school.

6. **ACADEMIC YEAR.** The academic year begins on the morning of the Wednesday following September 15. The annual Commencement comes in the week including the first Sunday in June. The Christmas recess begins at 1:00 P.M. December 20 (on December 19 if December 20 falls on Sunday), and ends at 8:00 A.M., January 3 (or January 4 if January 3 falls on Sunday). The spring recess begins at 1:00 P.M. of the Saturday in March nearest to March 25, and ends at 8:00 A.M., of Monday nine days later. Thanksgiving Day is a holiday.

7. **TENURE OF OFFICE.** Teachers of all ranks are subject to removal by the Executive Committee, with the approval of the University Trustees, for misconduct or neglect of duty. Teachers may be elected for terms of one, two, three, or four years; or teachers with the rank of professor may be elected without time-limit. Administrative officers are usually elected without time-limit, but the Executive



Committee, with the approval of the University Trustees, may remove any officer of the University, whenever, in their opinion, he is not properly performing the duties of his office.

8. The bylaws may be amended at any regular meeting of the University Trustees by the affirmative vote of two thirds of the then membership of the Board, providing that the proposed amendment is submitted through the Secretary of the Board to the members at least twenty days before the meeting.

### SABBATICAL LEAVE

Sabbatical leave of absence for members of the General Faculty is granted under regulations adopted by the Executive Committee of the Trustees on March 28, 1923, revised in 1928, partly in abeyance in the year 1933-34 and the succeeding three years, and restored in the year 1937-38. The conditions on which sabbatical leave of absence is granted are set forth below.

1. Every member of the General Faculty (composed of professors, associate professors, and assistant professors) is eligible for sabbatical leave after six years in the service of the University. Such leave may be taken for a full year at half salary or a half year at full salary.

2. In order to obtain a sabbatical leave written request for such leave must be filed with the President of the University by December 1 of the academic year preceding the one in which the leave is to take effect.

3. If in exceptional cases it should develop that the granting of leave to an applicant during the year for which application is made would raise very serious difficulties detrimental to the best interests of the applicant's department or school, or the interests of the institution as a whole; or because of questions concerning the applicant's period of service prior to the leave, the President shall appoint a committee which shall have power to decide the question of granting the sabbatical leave for the particular year under consideration. This committee shall consist of five members as follows: two members of the general faculty appointed yearly by the President, the Treasurer of the University, the Dean of the school or college of which the applicant is a member, the chairman of the applicant's department, or should no such chairman exist another member of the applicant's department.

4. If this committee should decide against the granting of a sabbatical leave for the year for which the applicant applied, the applicant would be eligible for sabbatical leave the following year or any year thereafter upon making application in due form as above.

5. After September 1, 1928, if a member of the faculty on becoming eligible for sabbatical leave does not for some special reason apply for such leave, he may count the additional years of service prior to his leave towards the six years of service necessary before he can apply for a subsequent leave. If in an exceptional case an applicant for personal reasons applies for a sabbatical leave to be effective in advance of his regular year and such leave is granted, he shall not be eligible for a subsequent leave until he has served six years plus the number of years by which this leave is advanced.

6. On recommendation of the committee after leave of absence has been granted it may be postponed for urgent reasons and under conditions to be determined by the committee.

7. All of those cases which have occurred in the past or which may occur in the future in which leave of absence is granted under conditions where the absentee receives full pay for a half year or half pay or more for a full year's leave of absence, shall be considered as regular sabbatical leave under these regulations.

8. These revised regulations became effective as of September 1, 1928, and sabbatical leaves under such regulations began with the academic year 1929-30. The regulations were partly in abeyance in 1933-34, 1934-35, 1935-36, and 1936-37. The restoration of the regulations began with the academic year 1937-38. The four years, 1933-34, 1934-35, 1935-36, and 1936-37, may not count toward the six years of service necessary before application can be made for leave of absence. In all cases in which special arrangements have been made for the granting of



sabbatical leave (as described in condition No. 7) during the period of partial abeyance of the plan, the next six years of service shall be counted as beginning with the academic year 1937-38. All other members of the General Faculty who apply for sabbatical leave may count the years of service they had to their credit at the beginning of the academic year 1933-34.

#### RETIREMENT

The following resolution was passed by the Board of Trustees on June 5, 1948:

RESOLVED, That the following regulations shall from the date of the adoption of this resolution govern the retirement of all officers and employees of Duke University:

##### *I. Retirement.*

Except as provided in Section II of this resolution all officers and employees of Duke University, except the Chancellor and Vice-Chancellor, shall retire at the end of the academic year in which they attain the age of sixty-nine (69), herein called the normal retirement age.

##### *II. Extension of Service.*

By special vote of the Board of Trustees individual extensions of service beyond the normal retirement age may be made for a definite period not to exceed one year, but no such extension shall postpone retirement beyond the end of the academic year in which the age of seventy (70) is attained.

##### *III. Amendment of Retirement Annuity Plan Adopted October 1, 1925.*

The retirement annuity plan adopted by Duke University on October 1, 1925, is hereby amended in those respects required to conform said plan with the provisions of this resolution.

##### *IV. Amendment.*

The University reserves the right at any time to amend these regulations by lowering the retirement age, or altering or abolishing the provision for extension of service, or otherwise.

# Officers of the University for the Year 1952-53



## *The Corporation*

*The date in parenthesis indicates the year of election.*

### THE EXECUTIVE COMMITTEE

*WILLIS SMITH (1946), <i>ex officio</i> , Chairman	Raleigh, N. C.
GEORGE GARLAND ALLEN (1923)	New York, N. Y.
NORMAN ATWATER COCKE (1952)	Charlotte, N. C.
ARTHUR HOLLIS EDENS (1948), <i>ex officio</i>	Durham, N. C.
AMOS RAGAN KEARNS (1948)	High Point, N. C.
ALEXANDER HAMILTON SANDS, JR. (1946)	New York, N. Y.
BUNYAN SNIPES WOMBLE (1950)	Winston-Salem, N. C.
CHRISTINE ALLEN KIMBALL (1945), <i>Recording Secretary</i>	Durham, N. C.

### THE UNIVERSITY TRUSTEES

#### TRUSTEES WHOSE TERM EXPIRES DECEMBER 31, 1955

GEORGE GARLAND ALLEN (1923)	New York, N. Y.
ROBERT GREGG CHERRY (1934)	Gastonia, N. C.
JESSE PAUL FRIZZELLE (1937)	Snow Hill, N. C.
CALVIN BRYAN HOUCK (1951)	Roanoke, Va.
†THOMAS McMILLAN GRANT (1933)	Rocky Mount, N. C.
EDWIN LEE JONES (1945)	Charlotte, N. C.
JAMES RAYMOND SMITH (1934)	Mount Airy, N. C.
ESTELLE FLOWERS SPEARS (1951)	Durham, N. C.
RICHARD ELTON THIGPEN (1953)	Charlotte, N. C.

#### FROM THE ALUMNI

BENJAMIN FERGUSON FEW (1941)	New York, N. Y.
JULIUS WELCH HARRISS (1947)	High Point, N. C.
WILLIAM JULIUS HOBBS (1947)	Atlanta, Ga.
HUBBARD BRAXTON PORTER (1941)	Troy, N. C.

#### TRUSTEES WHOSE TERM EXPIRES DECEMBER 31, 1957

CHARLES ALBERT CANNON (1949)	Concord, N. C.
HENRY CLAY DOSS (1943)	Detroit, Mich.
PHILLIP FRANK HANES (1948)	Walkertown, N. C.
‡GEORGE MELVIN IVEY (1943)	Charlotte, N. C.
WILLIAM WALTER PEELE (1921)	Laurinburg, N. C.
PAUL LINDSAY SAMPLE (1950)	McKeesport, Pa.
ALEXANDER HAMILTON SANDS, JR. (1946)	New York, N. Y.
BUNYAN SNIPES WOMBLE (1915)	Winston-Salem, N. C.

\* Died, June 26, 1953.

† Died, December 31, 1952.

‡ Resigned, May 30, 1953.

## DUKE UNIVERSITY

## FROM THE ALUMNI

NORMAN EDWARD EDGERTON (1941)  
 AMOS RAGAN KEARNS (1945)  
 ROBERT ANDREW MAYER (1897)  
 WALTER ALBERT STANBURY (1933)

Raleigh, N. C.  
 High Point, N. C.  
 Charlotte, N. C.  
 Asheboro, N. C.

## TRUSTEES WHOSE TERM EXPIRES DECEMBER 31, 1959

NORMAN ATWATER COCKE (1947) , *Vice-Chairman*  
 DONALD SILER ELIAS (1929)  
 PLEASANT HUBER HANES (1912)  
 JOSEPH LAWRENCE HORNE (1934)  
 WALKER PATTERSON INMAN (1949)  
 BENJAMIN EVERETT JORDAN (1943)  
 JAMES BUREN SIDBURY (1947)  
 EARLE WAYNE WEBB (1933)

Charlotte, N. C.  
 Asheville, N. C.  
 Winston-Salem, N. C.  
 Rocky Mount, N. C.  
 Georgetown, S. C.  
 Saxapahaw, N. C.  
 Wilmington, N. C.  
 New York, N. Y.

## FROM THE ALUMNI

SIDNEY SHERRILL ALDERMAN (1934)  
 KENNETH McMANES BRIM (1952)  
 EDGAR HARRISON NEASE (1950)  
 \*WILLIS SMITH (1929) , *Chairman*

Washington, D. C.  
 Greensboro, N. C.  
 Atlanta, Ga.  
 Raleigh, N. C.

## TRUSTEE EMERITUS

JAMES ARDREY BELL (1920)

Charlotte, N. C.

## COMMITTEES OF THE UNIVERSITY TRUSTEES

*Buildings and Grounds:* Messrs. J. R. Smith, Cherry, Jordan, and Kearns.

*Business Administration:* Messrs. P. H. Hanes, Elias, Hobbs, Kearns, and Sands.

*Colleges:* Messrs. Mayer, P. F. Hanes, and Houck, and Mrs. Spears.

*Divinity School:* Messrs. Peele, Edgerton, Grant,† Porter, and Stanbury.

*School of Forestry:* Messrs. Cherry, Edgerton, Few, and J. R. Smith.

*Graduate School:* Messrs. Webb, Cannon, Doss, and Sample.

*Law School:* Messrs. Womble, Alderman, Cherry, Cocke, Frizzelle, and P. H. Hanes.

*Library:* Messrs. Doss, Allen, Harriss, and Nease.

*Medical School and Hospital:* Messrs. Elias, Horne, Inman, and Sidbury.

*Physical Education and Athletics:* Messrs. J. R. Smith, Edgerton, P. F. Hanes, Harriss, and Jordan.

*Engineering and Research:* Messrs. Ivey,‡ Cocke, Doss, Jones, Jordan, Sands, and Webb.

*Cooperation with National Council:* Messrs. Sands, Few, Hobbs, Kearns, and Nease.

*Public Relations and Publicity:* Messrs. Horne, Elias, Harriss, and Ivey.‡

*Officers Emeriti*

ALICE MARY BALDWIN, Ph.D., LL.D.

*Professor Emeritus of History*

406 Swift Avenue

JOSEPH PENN BREEDLOVE, M.A.

*Librarian Emeritus*

407 Watts Street

\* Died, June 26, 1953.

† Died, December 31, 1952.

‡ Resigned, May 30, 1953.

FREDERICK AUGUSTUS GRANT COWPER, Ph.D. <i>Professor Emeritus of Romance Languages</i>	1017 Dacian Avenue
CHARLES WILLIAM EDWARDS, A.M., M.S. <i>Professor Emeritus of Physics</i>	406 Buchanan Boulevard
WILLIAM STONE FITZGERALD, A.M. <i>Instructor Emeritus of English</i>	603 Watts Street
MRS. LILLIAN B. GRIGGS, B.A. in L.S. <i>Librarian Emeritus</i>	915 Monmouth Avenue
GEORGE T. HARGITT, Ph.D., Sc.D. <i>Professor Emeritus of Zoology</i>	811 Watts Street
HUGO CLAUDE HORACK, LL.B., LL.D. <i>Professor Emeritus of Law</i>	Arlington, Va.
CHARLES ALBERT KRUMMEL, Ph.D. <i>Professor Emeritus of German</i>	2118 Englewood Avenue
JESSE MARVIN ORMOND, B.D., D.D. <i>Professor Emeritus of Practical Theology</i>	110 Pinecrest Road
ARTHUR SPERRY PEARSE, Ph.D., LL.D. <i>Professor Emeritus of Zoology</i>	803 Second Street
*CHARLES WILLIAM PEPLER, Ph.D. <i>Professor Emeritus of Greek</i>	406 Buchanan Boulevard
ARTHUR MARCUS PROCTOR, Ph.D. <i>Professor Emeritus of Education</i>	2106 Myrtle Drive
WILLIAM WALTER RANKIN, JR., M.A. <i>Professor Emeritus of Mathematics</i>	1011 Gloria Avenue
GILBERT THEODORE ROWE, S.T.D., D.D., Litt.D. <i>Professor Emeritus of Christian Doctrine</i>	150 Pinecrest Road
MRS. BESSIE WHITTED SPENCE, A.M., B.D. <i>Assistant Professor Emeritus of Biblical Literature</i>	3629 Hope Valley Road, Hope Valley
HERSEY EVERETT SPENCE, B.D., D.D., Litt.D. <i>Professor Emeritus of Religious Education</i>	3629 Hope Valley Road, Hope Valley
MRS. MARY HENDREN VANCE, A.M. <i>Assistant Professor Emeritus of English</i>	New Bern, N. C.
ALBERT MICAIAH WEBB, A.M. <i>Professor Emeritus of Romance Languages</i>	1017 Trinity Avenue
ALBAN GREGORY WIDGERY, M.A. <i>Professor Emeritus of Philosophy</i>	152 Pinecrest Road
ROBERT NORTH WILSON, M.S. <i>Professor Emeritus of Chemistry</i>	822 Third Street
EDWARD HUDSON YOUNG, A.M. <i>Assistant Professor Emeritus of Romance Languages</i>	107 Watts Street

## *Officers of Administration*

### GENERAL ADMINISTRATION

ARTHUR HOLLIS EDENS, Ph.D., LL.D. <i>President of the University</i>	2138 Myrtle Drive
WILLIAM HANE WANNAMAKER, A.M., Litt.D. <i>Vice-Chancellor of the University</i>	615 West Campus
PAUL MAGNUS GROSS, Ph.D. <i>Vice-President in the Division of Education</i>	3816 Dover Road, Hope Valley
* Died, May 12, 1953.	

CHARLES EDWARD JORDAN, A.B., LL.D. <i>Vice-President in the Division of Public Relations</i>	813 Vickers Avenue
HERBERT JAMES HERRING, M.A., LL.D. <i>Vice-President in the Division of Student Life</i>	2010 Myrtle Drive
ALFRED SMITH BROWER, A.B. <i>Business Manager and Comptroller</i>	614 West Campus
CHARLES BLACKWELL MARKHAM, A.M. <i>Treasurer of the University</i>	204 Dillard Street

## EDUCATIONAL ADMINISTRATION

PAUL MAGNUS GROSS, Ph.D. <i>Vice-President in the Division of Education, and Dean of the University</i>	3816 Dover Road, Hope Valley
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## The Colleges

ROBERTA FLORENCE BRINKLEY, Ph.D. <i>Dean of the Woman's College</i>	East Campus
WILLIAM HOLLAND HALL, A.M., M.S.C.E. <i>Dean of the College of Engineering</i>	922 Urban Avenue
HERBERT JAMES HERRING, M.A., LL.D. <i>Dean of Trinity College</i>	2010 Myrtle Drive
ALAN KREBS MANCIESTER, Ph.D. <i>Dean of Undergraduate Studies</i>	2016 Myrtle Drive
WILLIAM COUNCILL ARCHIE, Ph.D. <i>Associate Dean of Trinity College</i>	2310 Cranford Road
ROBERT B. COX, A.M. <i>Dean of Undergraduate Men</i>	1107 Ninth Street
ELLEN HARRIS HUCKABEE, A.M. <i>Dean of Undergraduate Instruction, Woman's College</i>	1507 W. Pettigrew Street
MARIANNA DUNCAN JENKINS, Ph.D. <i>Associate Dean of Undergraduate Instruction, Woman's College</i>	1026 Minerva Avenue
LEWIS J. MCNURLIN, M.A. <i>Assistant Dean of Freshmen, Trinity College</i>	1818 Glendale Avenue
LANIER W. PRATT, M.A. <i>Assistant Dean of Trinity College in Charge of Freshmen</i>	2007 Ruffin Street
MARY GRACE WILSON, A.M. <i>Dean of Undergraduate Women</i>	Faculty Apartments
MRS. ELIZABETH ANDERSON PERSONS, A.M. <i>Director of Admissions, Woman's College</i>	612 Swift Avenue
EVERETT BROADUS WEATHERSPOON, A.B. <i>Director of Admissions, Trinity College and the College of Engineering</i>	125 Pinecrest Road
WILLIAM LAMBRETH BRINKLEY, JR., A.B. <i>Assistant Director of Admissions, Trinity College and the College of Engineering</i>	202 Faculty Apartments, East Campus
*ANN ANDERSON BRIDGERS, A.B. <i>Field Secretary, Undergraduate Admissions</i>	Poplar Apartments
JOHN C. DUNSON, A.B. <i>Field Secretary, Undergraduate Admissions</i>	Box 4261, Duke Station
†WILLIAM JACKSON GRIFFITH, A.B. <i>Field Secretary, Undergraduate Admissions</i>	Erwin Apartments

\* Resigned, June 1, 1952.

† Resigned, August 15, 1952.



- ELIZABETH LASSITER, A.B.  
*Field Secretary, Undergraduate Admissions* 506 Buchanan Boulevard
- MARGARET L. COLEMAN, A.M.  
*Recorder, Trinity College and the College of Engineering* 918 Urban Avenue
- ANNE INMAN, B.S.  
*Administrative Assistant, Graduate School* 1406 Duke University Road
- HELEN MILDRED KENDALL, A.B.  
*Administrative Assistant and Secretary of the Faculty, Divinity School* 402 Buchanan Boulevard
- LOUISE SEABOLT, A.M.  
*Recorder, Woman's College* Faculty Apartments
- HENRY WEITZ, Ed.D.  
*Director of the Bureau of Testing and Guidance* 517½ South Duke Street
- EDWARD L. ADAMS, JR., Ph.D. Box 71B, Route 1, Old Chapel Hill Road  
*Senior Counselor, Bureau of Testing and Guidance*
- J. ALBERT SOUTHERN, A.B. 862 Louise Circle, Poplar Apartments  
*Psychometrist, Bureau of Testing and Guidance*

## Graduate and Professional Schools

- CHARLES SACKETT SYDNOR, M.A. (Oxon.), Ph.D., Litt.D., LL.D.  
*Dean of the Graduate School of Arts and Sciences* 116 Pinecrest Road
- \*JOSEPH CLARKE ROBERT, Ph.D.  
*Associate Dean of the Graduate School of Arts and Sciences* 1102 B Street
- CHARLES EUGENE WARD, Ph.D.  
*Director of Admissions, Graduate School of Arts and Sciences* 2429 Perkins Road
- JAMES CANNON, A.M., Th.M., D.D.  
*Dean of the Divinity School* 2022 Myrtle Drive
- CLARENCE FERDINAND KORSTIAN, Ph.D.  
*Dean of the School of Forestry* 4 Sylvan Road
- JOSEPH A. McCLAIN, JR., J.S.D., LL.D.  
*Dean of the School of Law* 2021 Myrtle Drive
- WILBURT CORNELL DAVISON, D.Sc., M.D., LL.D.  
*Dean of the School of Medicine* Hope Valley
- FLORENCE K. WILSON, R.N., M.A.  
*Dean of the School of Nursing* Faculty Apartments
- PAUL HIBBERT CLYDE, Ph.D.  
*Director of the Summer Session* 1311 Carolina Avenue
- OLAN L. PETTY, Ph.D.  
*Assistant Director of the Summer Session* 115 Faculty Apartments
- CAZLYN GREEN BOOKHOUT, Ph.D.  
*Director of the Duke Marine Laboratory* 1307 Alabama Avenue

## BUSINESS ADMINISTRATION

- ALFRED SMITH BROWER, A.B.  
*Business Manager and Comptroller* 614 West Campus
- CHARLES BLACKWELL MARKHAM, A.M.  
*Treasurer of the University* 204 Dillard Street
- CHARLES EDWARD JORDAN, A.B., LL.D.  
*Secretary of the University* 813 Vickers Avenue

\* Resigned, August 31, 1952.

EDWIN CONSTANT BRYSON, LL.B. <i>University Attorney</i>	1023 Sycamore Street
GERHARD CHESTER HENRICKSEN, C.P.A. <i>Assistant Business Manager and Assistant Comptroller</i>	216 Forest Wood Drive
JOHN M. DOZIER, A.B. <i>Associate Secretary of the University</i>	2111 Ruffin Street
WILLIAM EDWARD WHITFORD, A.B. <i>Director of Operation and Maintenance</i>	146 Pinecrest Road
THEODORE WARREN MINAH, B.S. in H.M. <i>Director of Dining Hall Operations</i>	2117 Club Boulevard
MARY ROBINSON, B.A., B.S. <i>Manager, the Dining Halls, Woman's College</i>	921 Lambeth Circle
LAURA MARGUERITE DEYOE, B.S. <i>Manager, the Dining Halls, Men's Graduate Center</i>	2722 Brown Avenue
JOHN ELLWOOD DOXEY, A.M. <i>Purchasing Agent</i>	1004 Broad Street
JESSE DAVID WELLONS, JR. <i>Manager of Stores Operations</i>	2703 Augusta Drive
WALTER GLEN COOPER, B.A. <i>Personnel Director</i>	1008 North Gregson Street
WILLIAM KENNETH HOWARD, B.S. <i>Maintenance Engineer</i>	106 Pinecrest Road
HENRY FRANKLIN BOWERS, A.B. <i>Manager of Operations</i>	2505 Perkins Road
ERNEST LEE HAYWOOD, A.B. <i>Chief Accountant</i>	104 Hilton Avenue
*JAMES FRANKLIN COUSINS, C.P.A. <i>Auditor</i>	615 Swift Avenue
HARRY L. KELLER, C.P.A. <i>Supervisor, Budgets and Reports</i>	1 Carolee Apartments
HENRY SPECK MORGAN, A.B. <i>Chief Clerk, Treasurer's Office</i>	409 Francis Street
ROBERT BEVFRIDGE FEARING <i>Adviser, Student Activities</i>	1803 Forest Road
CARL A. BOY <i>Superintendent of Utilities</i>	2214 Erwin Road
JOHN C. GIFT <i>Superintendent of Building Maintenance</i>	811 Fifth Street

## PUBLIC RELATIONS

CHARLES EDWARD JORDAN, A.B., LL.D. <i>Vice-President in the Division of Public Relations</i>	813 Vickers Avenue
JOHN M. DOZIER, A.B. <i>Assistant to the Vice-President in the Division of Public Relations; Executive Secretary, University Scholarship Committee</i>	2111 Ruffin Street
†EDWARD L. FIKE, A.B. <i>Director, Bureau of Public Information</i>	801 Third Street
EARL W. PORTER, A.B., B.J. <i>Director, Bureau of Public Information</i>	Randolph Road
GLENN EDWARD MANN, A.B. <i>Director, Office of Athletic Information</i>	Cole Mill Road
* Resigned, January 1, 1953.	
† Resigned, May 12, 1952.	

FANNIE YARBROUGH MITCHELL  
*Director, Appointments Office*

16 Alastair Court

## ALUMNI AFFAIRS

CHARLES AUBREY DUKES, A.B.  
*Director*

1309 Oakland Avenue

ANNE GARRARD, A.M.  
*Assistant Director*

1411 North Duke Street

WILLIAM ALLEN TYREE, A.B.  
*Field Secretary, Duke University Loyalty Fund*

610 Buchanan Boulevard

CHARLOTTE CORBIN, A.B.  
*Assistant to the Director*

403 W. Chapel Hill Street

ROGER L. MARSHALL, A.B.  
*Editor, Alumni Register, and Assistant to the Director*

1829 Forest Road

FRED W. WHITENER, A.B.  
*Secretary of Local Associations*

Cornwallis Road

PATSY G. MCKAY, A.B.  
*Recorder*

Route 2, Roxboro Road

JAMES J. WHITLEY, JR.  
*University Photographer*

2509 Banner Street

*Officers of Instruction*

## INSTRUCTIONAL STAFF

*All members of the several faculties of the University are included. The date denotes the first year of service.*

PAUL MCB. ABERNETHY (1952), M.D.  
*Instructor in Ophthalmology*

Burlington, N. C.

ARTHUR F. ABT (1952), M.D.  
*Professor of Pediatrics; Director of  
 Radioisotope Unit, Veterans Hospital*

Duke Hospital

\*FRANCES DOROTHY ACOMB (1945), Ph.D.  
*Assistant Professor of History*

216 Faculty Apartments

DONALD KEITH ADAMS (1931), Ph.D.  
*Professor of Psychology*

2508 Cornwallis Road

EDWARD L. ADAMS, JR. (1951), Ph.D.  
*Instructor in Education*

Box 71B, Route 1, Old Chapel Hill Road

JOHN PLETCH ADAMS (1952), M.D.  
*Instructor in Orthopaedic Surgery*

1824 Forest Road

TROGLER F. ADKINS (1938), M.D.  
*Instructor in Obstetrics and Gynecology*

2108 Sprunt Street

JOHN W. ALLGOOD (1951), M.D.  
*Instructor in Medicine*

Greensboro, N. C.

ROBERT L. ALTER (1951), M.D.  
*Assistant Professor of Obstetrics and Gynecology*

2027 Woodward Street

EDWIN PASCAL ALYEA (1930), M.D.  
*Professor of Urology*

3102 Devon Road, Hope Valley

†LEWIS EDWARD ANDERSON (1936), Ph.D.  
*Associate Professor of Botany*

2020 Sunset Avenue

\* Absent on sabbatical leave, fall semester, 1952-53.

† Absent on sabbatical leave, spring semester, 1952-53.

- ROGER FABIAN ANDERSON (1950), Ph.D.  
*Associate Professor of Forest Entomology* 2528 Perkins Road
- WILLIAM BANKS ANDERSON (1930), M.D.  
*Professor of Ophthalmology* 502 East Forest Hills Boulevard
- WILLIAM G. ANLYAN (1951), M.D.  
*Associate in Surgery* 2519 Pickett Road
- WILLIAM COUNCILL ARCHIE (1946), Ph.D.  
*Associate Professor of Romance Languages* 2310 Cranford Road
- JAY MORRIS ARENA (1933), M.D.  
*Associate Professor of Pediatrics* 2032 Club Boulevard
- RALPH ARANOVITZ ARNOLD (1946), M.D.  
*Associate Professor of Otolaryngology and Ophthalmology* 415 Carolina Circle
- TANASH H. ATOYNATAN (1952), P.C.N., M.D.  
*Instructor in Psychiatry* 2016 James Street
- THEODORE WINSLOW ATWOOD (1934), D.M.D.  
*Associate in Dentistry* 9 Carolee Apartments  
 2200 Elder Street
- THOMAS MALCOLM AYCOCK (1937), M.A.  
*Professor of Physical Education* D1C University Apartments
- JOSEPH RANDLE BAILEY (1946), Ph.D.  
*Assistant Professor of Zoology* 10 Duke University Apartments
- \*HORACE MITCHELL BAKER, JR. (1948), M.D.  
*Instructor in Surgery* 2315 Wilson Street
- LXNOX DIAL BAKER (1937), M.D.  
*Professor of Orthopaedic Surgery* 3106 Cornwall Road, Hope Valley
- ROGER D. BAKER (1930-1942; 1952), M.D.  
*Professor of Pathology* 303 Swift Avenue
- MARIE BALDWIN (1949), M.D.  
*Instructor in Psychiatry* Duke Hospital
- KATHARINE MAY BANHAM (1946), Ph.D.  
*Associate Professor of Psychology* 115 North Dillard Street
- SHERWOOD W. BAREFOOT (1946), M.D. 363 North Elm Street, Greensboro, N. C.  
*Instructor in Dermatology and Syphilology*
- JAMES FOSTER BARNES (1929), A.M.  
*Lecturer in Church Music* 2401 Cranford Road
- ROBERT D. BARNES (1952), B.S.  
*Instructor in Zoology* University Apartments
- \*BETTY GREEN BASON (1949), R.N., B.S.  
*Instructor in Medical Nursing* 2100 Erwin Road
- WOODROW BATTEN (1951), M.D.  
*Instructor in Medicine* 332 South Third Street, Smithfield, N. C.
- PAULL FRANKLIN BAUM (1922), Ph.D.  
*James B. Duke Professor of English* 112 Pinecrest Road
- GEORGE JAY BAYLIN (1939), M.D.  
*Professor of Radiology and Associate in Anatomy* 2260 Cranford Road
- CHARLES A. BAYLIS (1952), Ph.D.  
*Professor of Philosophy* 2802 Erwin Road
- †WILLIAM WALDO BEACH (1946), Ph.D.  
*Professor of Christian Ethics* 100 Vineyard Street

\* Resigned, August 31, 1952.

† Absent on sabbatical leave, spring semester, 1952-53.

- MRS. DOROTHY WATERS BEARD (1938), R.N.  
*Research Associate in Surgery* Route 3, Hillsboro, N. C.
- JOSEPH WILLIS BEARD (1937), M.D.  
*Professor of Surgery in Charge of Experimental Surgery; Associate Professor of Virology* Route 3, Hillsboro, N. C.
- R. FREDERICK BECKER (1951), Ph.D.  
*Associate Professor of Anatomy* 1010 Monmouth Avenue
- \*ROBERT L. BENNETT (1946), M.D.  
*Lecturer in Physical Medicine* Duke Hospital
- WALTER R. BENSON (1952), M.D.  
*Instructor in Pathology* 947 Lambeth Circle, Poplar Apartments
- †KLAUS WILLIAM BERBLINGER (1950), M.D.  
*Associate in Psychiatry* 2318 Huron Circle
- FREDERICK BERNHEIM (1930), Ph.D.  
*Professor of Pharmacology* Woodridge Drive
- MRS. MARY LILIAS CHRISTIAN BERNHEIM (1930), Ph.D.  
*Associate Professor of Biochemistry* Woodridge Drive
- ‡EDWARD WILLARD BERRY (1936), Ph.D.  
*Professor of Geology* 1003 North Gregson Street
- WILLIAM M. BERTON (1952), M.D.  
*Associate in Pathology* 887 Louise Circle, Poplar Apartments
- MRS. HELEN SMITH BEVINGTON (1943), M.A.  
*Assistant Professor of English* Box 94, Route 2, Guess Road
- MERLE MOWBRAY BEVINGTON (1942), Ph.D.  
*Associate Professor of English* Box 94, Route 2, Guess Road
- LUCIUS AURELIUS BIGELOW (1929), Ph.D.  
*Professor of Chemistry* 131 Pinecrest Road
- ROBERT R. BIGELOW (1952)  
*Visiting Lecturer in Surgery* Duke Hospital
- \*\*DWIGHT BILLINGS (1952), Ph.D.  
*Associate Professor of Botany* Department of Botany
- HAROLD CRUSIUS BIRD (1926), Ph.B., C.E.  
*Professor of Civil Engineering* 1209 Virginia Avenue
- MARTIN L. BLACK, JR. (1930), M.B.A., C.P.A.  
*Professor of Accounting* 135 Pinecrest Road
- WILLIAM MAXWELL BLACKBURN (1926), Ph.D.  
*Professor of English* 2101 Ward Street
- ††BERNARD BLACK-SCHIAFFER (1945), M.D.  
*Associate Professor of Pathology* Piedmont Apartments
- EMIL BLAIR (1952), M.D.  
*Instructor in Medicine* Elder Street
- ROBERT LINCOLN BLAKE (1949)  
*Instructor in Medical Art and Illustration* 609 Ruby Street
- MARTIN M. BLOCK (1952), Ph.D. 927 Lambeth Circle, Poplar Apartments  
*Assistant Professor of Physics and Research Associate*
- HUGO LEANDER BLOMQUIST (1920), Ph.D.  
*Professor of Botany* 922 Demerius Street

\* Resigned, August 31, 1952.

† Resigned, April 1, 1952.

‡ Absent on sabbatical leave, fall semester, 1952-53.

\*\* Absent on leave, 1952-53.

†† Resigned, August 31, 1952.



- BYRON M. BLOOR (1952), M.D.  
*Associate in Neurosurgery* 2302 Erwin Road
- \*EDNA MAY BLUMENTHAL (1950), B.S.  
*Lecturer in Physical Therapy* 1507 West Pettigrew Street
- JAMES ROBERT BLY (1949), M.S.  
*Assistant Professor of Physical Education* University Apartments
- WILLIAM BRYAN BOLICH (1927), M.A., B.C.L.  
*Professor of Law* 3724 Hope Valley Road, Hope Valley
- EDWARD CLAUDE BOLMEIER (1948), Ph.D.  
*Professor of Education* Faculty Apartments
- \*GEORGE F. BOND (1949), M.D.  
*Instructor in General Practice of Medicine* Duke Hospital
- ALLAN HADLEY BONE (1944), M.M.  
*Associate Professor of Music* 2314 West Club Boulevard
- CAZLYN GREEN BOOKHOUT (1935), Ph.D.  
*Associate Professor of Zoology* 1307 Alabama Avenue
- MRS. ELIZABETH CIRCLE BOOKHOUT (1932-43; 1945), M.S.  
*Associate Professor of Physical Education* 1307 Alabama Avenue
- ALEXANDER W. BOONE (1952), M.D.  
*Associate in Urology* 1106 Buchanan Boulevard
- JOHN CHESLEY BOVIL (1952), M.D.  
*Instructor in Surgery* 919 Broad Street
- JEAN D. BOWEN (1952), Ph.D.  
*Instructor in Romance Languages* 1009 West Trinity Avenue
- W. EDGAR BOWERS, JR. (1952), M.A.  
*Instructor in English* 1011 Lamond Avenue
- †FRANCIS EZRA BOWMAN (1945), Ph.D.  
*Associate Professor of English* 1503 Alabama Avenue
- BENJAMIN BOYCE (1950), Ph.D.  
*Professor of English* 1200 Dwire Place
- JOSEPH ALSTON BOYD, JR. (1952), M.D.  
*Assistant Professor of Radiology and Radiologist* 867 Louise Circle, Poplar Apartments
- DAVID GILBERT BRADLEY (1949), Ph.D.  
*Assistant Professor of Undergraduate Religion* 405 Carver Street
- HAROLD L. BRADLEY (1950), B.S.  
*Instructor in Physical Education* 1903 Washington Street
- CHARLES KILGO BRADSHAW (1939), Ph.D.  
*Associate Professor of Chemistry* 2318 Englewood Avenue
- JOHN SAEGER BRADWAY (1931), A.M., LL.B.  
*Professor of Law, and Director of the Legal Aid Clinic* 2621 Stuart Drive
- \*ROYALL BRANDIS (1949), M.A.  
*Instructor in Economics* 2720 Brown Avenue
- \*J. STREET BREWER (1949), M.D.  
*Instructor in General Practice of Medicine* Roseboro, N. C.
- \*JOHN P. BRIGGS (1950), M.D.  
*Instructor in Psychiatry* 2413 University Drive
- ROBERTA FLORENCE BRINKLEY (1947), Ph.D.  
*Professor of English* East Campus

\* Resigned, August 31, 1952.

† Absent on sabbatical leave, fall semester, 1952-53.

- \*THOMAS RAY BROADBENT (1950), M.D.  
*Instructor in Surgery* 1408 Duke University Road
- MRS. HELEN EELS BROCK (1952), B.E., R.N., B.S.  
*Instructor in Nursing Arts* D3C University Apartments
- ROBERT MAURICE BRODERSON (1952), M.F.A.  
*Instructor in Art Education and Studio, and  
Instructor in Department of Education* 4 Duke University Apartments  
Fifth and Markham Avenue
- CHANDLER WILCOX BROWN (1947), B.S. in C.E.  
*Instructor in Civil Engineering* Box 4, Route 1, Cornwallis Road
- FRANCES CAMPBELL BROWN (1931), Ph.D.  
*Associate Professor of Chemistry* 1205 Dwire Place
- IVAN WILLARD BROWN, JR. (1940-42; 1945), M.D.  
*Assistant Professor of Surgery* 2314 Woodrow Street
- WADE G. BROWN (1947), A.B.  
*Instructor in Preventive Medicine and Public Health* Duke Hospital
- WILLIAM HUGH BROWNLEE (1948), Ph.D.  
*Assistant Professor of Old Testament* 1014 Edith Street
- MARSHALL N. BRUCER (1950), M.D.  
*Lecturer in Physiology* Duke Hospital
- PAUL ROBEY BRYAN (1951), M.M.  
*Assistant Professor of Music* Duke University Apartments
- †JEANETTE ELIZABETH BRYANT (1949), R.N., B.S.  
*Instructor in Surgical Nursing* 2020 James Street
- EDWIN CONSTANT BRYSON (1931), LL.B.  
*Associate Professor of Law, and Instructor in Hospital Administration* 1023 Sycamore Street
- LOUIS J. BUDD (1952), Ph.D.  
*Assistant Professor of English* 2224 Elba Street
- MRS. JESSE HARNED BUFKIN (1949), R.N., R.R.L.  
*Assistant Professor of Medical Record Science* 2425 Perkins Road
- \*EVERETT I. BUGG, JR. (1946), M.D.  
*Instructor in Orthopaedics* 1544 Hermitage Court
- ‡RODERICK MARK BUFE, JR. (1951), M.D.  
*Instructor in Medicine* 3405 Madison Avenue, Greensboro, N. C.
- \*\*THOMAS WADE BURNS (1950), M.D.  
*Instructor in Medicine* 2302 Cranford Road
- JASPER LAMAR CALLAWAY (1937), M.D.  
*Professor of Dermatology and Syphilology* 828 Anderson Street
- EDMUND McCULLOUGH CAMERON (1926), A.B.  
*Director of Physical Education and Athletics,  
and Assistant Coach of Football* 2818 Chelsea Circle, Hope Valley
- FRANK H. CAMPBELL (1952), M.D.  
*Instructor in Medicine* Duke Hospital
- MARY B. CAMPBELL (1952), R.N., B.S., M.A.A.N.A.  
*Instructor in Operating Room Technique* Hanes House
- PAUL C. CAMPBELL, JR. (1951), M.D.  
*Instructor in Dermatology and Syphilology* 327 Ray Avenue, Fayetteville, N. C.
- JAMES CANNON (1919), A.M., Th.M., D.D.  
*Ivey Professor of the History of Religion and Missions* 2022 Myrtle Drive

\* Resigned, August 31, 1952.

† Resigned, June 30, 1952.

‡ Resigned, January 1, 1953.

\*\* Resigned, December 18, 1951.

- LEONARD CARLITZ (1932), Ph.D.  
*Professor of Mathematics* 2303 Cranford Road
- DAVID WILLIAMS CARPENTER (1929), Ph.D.  
*Professor of Physics* 137 Pinecrest Road
- \*JOHN WINDER CARR, JR. (1926), Ph.D.  
*Professor of Education* 926 Monmouth Avenue
- EBER MALCOLM CARROLL (1923), Ph.D.  
*James B. Duke Professor of History* KIC University Apartments
- R. CHARMAN CARROLL (1944), R.N., A.B., M.D.  
*Assistant Profesoor of Psychiatry* Duke Hospital
- †KYLE CARSON (1949), R.N., A.B.  
*Instructor in Medical Nursing* Leesville Road
- BAYARD CARTER (1931), M.D.  
*Professor of Obstetrics and Gynecology* 2111 Myrtle Drive
- DONALD D. CARTER (1952), M.D.  
*Instructor in Medicine* 875 Louise Circle, Poplar Apartments
- ‡NAOMI RUTH CARTER (1949), R.N., B.E.  
*Instructor in Surgical Nursing* 2102 Erwin Road
- ALLAN M. CARTTER (1952), Ph.D.  
*Assistant Professor of Economics and Research Associate* 7 Sylvan Road
- WILLIAM H. CARTWRIGHT (1951), Ph.D.  
*Professor of Education* 942 Lambeth Circle, Poplar Apartments
- MRS. HELEN KENNARD CASTELLANO (1947), M.A.  
*Instructor in Romance Languages* 2511 Perkins Road
- JUAN RODRÍGUEZ CASTELLANO (1947), Doctor en Filosofía y Letras  
*Associate Professor of Romance Languages* 2511 Perkins Road
- LEON EDWARD CHAIKEN (1952), B.S., M.F.  
*Associate Professor of Forest Management and Assistant Director of the Forest* 1211 Ruffin Street
- MRS. ROMA SAWYER CHEEK (1947), Ph.D.  
*Assistant Professor of Political Science* 1014 Gloria Avenue
- BENJAMIN GUY CHILDS (1924), M.A.  
*Professor of Education* 1019 West Markham Avenue
- MARGARET CHURCH (1946), Ph.D.  
*Instructor in English* Route 2, Cole Mill Road
- ELON HENRY CLARK (1934)  
*Professor of Medical Art and Illustration* 1300 Oakland Avenue
- KENNETH WILLIS CLARK (1931), Ph.D.  
*Professor of New Testament Language and Literature* 1308 West Markham Avenue
- LELIA R. CLARK (1949), R.N., M.A.  
*Professor of Nursing Education* Hanes House
- ROBERT W. CLARK (1950), A.B., Captain, U. S. Air Force  
*Assistant Professor of Air Science* 1109 North Gregson Street
- JAMES T. CLELAND (1945), M.A., S.T.M., D.D.  
*Professor of Homiletics, and Preacher to the University* 2117 Myrtle Drive
- PAUL HIBBERT CLYDE (1937), Ph.D.  
*Professor of History* 1311 Carolina Avenue

\* Absent on sabbatical leave, 1952-53.

† Resigned, June 30, 1952.

‡ Resigned, April 14, 1952.

- CLARENCE H. COBB (1934), Ph.G.  
*Instructor in Hospital Administration* 402 Morehead Avenue
- LOUIS DAVID COHEN (1946), Ph.D.  
*Assistant Professor of Psychology, and Assistant Professor of Clinical Psychology* 913 Monmouth Avenue
- THEODORE STANLEY COILE (1935), Ph.D.  
*Professor of Forest Soils* Box 301, Route 1, Hillsboro Road
- \*ROBERT TAYLOR COLE (1935), Ph.D.  
*James B. Duke Professor of Political Science* 7 Sylvan Road
- GEORGE H. COLLIER (1951), Ph.D.  
*Assistant Professor of Psychology* 510 East Club Boulevard
- JOHN P. COLLINS (1948), M.D.  
*Assistant Professor of Surgery* 15 Alastair Apartments
- JOEL G. COLTON (1947), Ph.D.  
*Assistant Professor of History* CIC University Apartments
- NORMAN FRANCIS CONANT (1935), Ph.D.  
*Professor of Mycology, and Associate Professor of Bacteriology* Route 1, Old Cornwallis Road
- RICHARD GRIGSBY CONNAR (1950), M.D.  
*Instructor in Surgery* Alastair Apartments
- ROBERT HOWE CONNERY (1949), Ph.D.  
*Professor of Political Science* 906 Buchanan Boulevard
- REBEKAH CONRAD (1953), R.N., M.N.  
*Instructor in Nursing Arts* 920 Second Street
- †DANIEL COOK (1950), M.A.  
*Instructor in English* 15 Hawthorne Drive
- EVELYN VAIL COONRAD (1952), M.D.  
*Instructor in Medicine* 11D Westover Park Apartments
- RAPHAEL W. COONRAD (1952), M.D.  
*Instructor in Orthopaedic Surgery* 11D Westover Park Apartments
- ALBERT DERWIN COOPER (1934), M.D.  
*Instructor in Medicine* 1006 Dacian Avenue
- THOMAS HOWARD CORDLE (1950), Ph.D.  
*Instructor in Romance Languages* 2420 Perkins Road
- ALFRED NIXON COSTNER (1950), M.D.  
*Associate in Ophthalmology* K3A University Apartments
- ROBERT CALVIN COX (1942), M.A.  
*Instructor in Physical Education* 1826 Guess Road
- ROBERT LAWRENCE CRAIG (1938), M.D.  
*Associate in Psychiatry* Duke Hospital
- †HATTIE MILDRED CRAWLEY (1946), R.N., B.S., B.S.N.Ed.  
*Instructor in Nursing Arts* Statesville, N. C.
- ROBERT NOWELL CREADICK (1946), M.D.  
*Associate Professor of Obstetrics and Gynecology* 2226 Elba Street
- MASON CRUM (1930), Ph.D., Litt.D.  
*Professor of Biblical Literature* 912 Anderson Street
- HORACE B. CULP (1953), M.D.  
*Assistant Professor of Hospital Administration, and Manager of the Veterans Hospital* Room D-1000, Veterans Hospital

\* Absent on sabbatical leave, 1952-53.

† Resigned, August 31, 1952.

‡ Resigned, October 13, 1952.

- JOHN SHELTON CURTISS (1945), Ph.D.  
*Professor of History* Route 2, Box 95
- ROBERT EARL CUSHMAN (1945), Ph.D.  
*Professor of Systematic Theology* 130 Pinecrest Road
- W. KENNETH CUYLER (1938), Ph.D.  
*Research Instructor in Obstetrics* Box 19, Route 1, Durham, N. C.
- BINGHAM DAI (1943), Ph.D.  
*Professor of Psychology, and Professor of Medical Psychology* 2404 Perkins Road
- WILLIAM DAVID DAVIES (1950), B.D., D.D.  
*Professor of Biblical Theology* 13 Duke University Apartments
- CLARENCE D. DAVIS (1950), M.D.  
*Assistant Professor of Obstetrics and Gynecology* 2301 West Club Boulevard
- COURTLAND HARWELL DAVIS, JR. (1950), M.D.  
*Instructor in Neurology* 1803 Hillcrest Drive
- GIFFORD DAVIS (1930), Ph.D.  
*Associate Professor of Romance Languages* 2248 Cranford Road
- JAY DAVIS (1952), B.S., M.A.  
*Instructor in Physical Education* 213 Faculty Apartments
- MRS. ATALA THAYER SCUDDER DAVISON (1942), M.D.  
*Associate in Pediatrics* Fairways, Hope Valley
- WILBURT CORNELL DAVISON (1927), M.D., D.Sc., LL.D.  
*James B. Duke Professor of Pediatrics* Fairways, Hope Valley
- ALEXANDER DECONDE (1952), Ph.D.  
*Research Associate in History* 2513 Pickett Road
- JOHN ESSARY DEES (1939), M.D.  
*Associate Professor of Urology* 413 Carolina Circle
- MRS. SUSAN COONS DEES (1939), M.D.  
*Associate Professor of Pediatrics and Allergy* 413 Carolina Circle
- DAVID C. DELLINGER (1951), B.S.M.E., Captain, U. S. Air Force  
*Instructor in Air Science* L3C University Apartments
- WILLIAM J. A. DEMARIA (1951), M.D.  
*Associate in Pediatrics* 2721 Brown Avenue, Poplar Apartments
- JEAN-JACQUES DEMOREST (1948), Ph.D.  
*Assistant Professor of Romance Languages* 1013 Broad Street
- WILLIAM ERNEST DETURK (1949), M.D., Ph.D.  
*Assistant Professor of Pharmacology* 1212 Ruffin Street
- FRANK TRAVER DE VYVER (1935), Ph.D.  
*Professor of Economics* 8 Sylvan Road
- DONALD J. DEWEY (1950), M.A.  
*Assistant Professor of Economics* 611 Watts Street
- MACDONALD DICK (1932), M.D.  
*Assistant Professor of Physiology and Pharmacology, and Associate in Medicine* Hope Valley
- ROBERT L. DICKENS (1949), M.S., C.P.A.  
*Assistant Professor of Accounting* 877 Louise Circle, Poplar Apartments
- RUSSELL LESLIE DICKS (1949), B.D., D.D., D.Litt.  
*Associate Professor of Pastoral Care and Chaplain to Duke Hospital* 2308 Prince Street
- \* HUGH DORTCH, JR. (1951), M.D.  
*Associate in Pathology* 2108 Cole Road

\* Resigned, August 31, 1952.



- MRS. MARIE-THERESE LINIERE DOW (1934), L. ès L., M.A.  
*Instructor in Romance Languages* 2252 Cranford Road
- NEAL DOW (1934), Ph.D.  
*Assistant Professor of Romance Languages* 2252 Cranford Road
- \*JOSEPH THEOBALD DOYLE (1952), M.D.  
*Associate in Medicine* Duke Hospital
- FRANCIS GEORGE DRESSEL (1929), Ph.D.  
*Professor of Mathematics* 309 Francis Street
- KENNETH LINDSAY DUKE (1940), Ph.D.  
*Associate Professor of Anatomy* 701 West Club Boulevard
- BRADFORD DUNHAM (1950), Ph.D.  
*Instructor in Philosophy* 603 Watts Street
- OSCAR DUQUE (1951), M.D.  
*Associate in Pathology* 826 Louise Circle, Poplar Apartments
- ROBERT F. DURDEN (1952), Ph.D.  
*Instructor in History* 216 Faculty Apartments
- GEORGE SIHARP EADIE (1930), Ph.D.  
*Professor of Physiology and Pharmacology* 3433 Dover Road, Hope Valley
- WATT WEEMS EAGLE (1930), Ph.D.  
*Professor of Otolaryngology* 804 Anderson Street
- MRS. ELEANOR BEAMER EASLEY (1934), M.D.  
*Associate in Obstetrics and Gynecology* Guess Road
- HOWARD EASLEY (1930), Ph.D.  
*Associate Professor of Education* Guess Road
- \*HARRY CLAUDE MACCOLL EASTMAN (1949), M.A.  
*Instructor in Economics* Alastair Apartments
- FREDERICK THOMAS EASTWOOD (1951), M.D.  
*Instructor in Pediatrics* 1839 West Smallwood Drive, Raleigh, N. C.
- RUTH BUCHANAN EDDY (1952), M.S.  
*Assistant Professor of Physical Education* 1507 West Pettigrew Street
- JOSHUA L. EDWARDS (1951), M.D.  
*Associate in Pathology* 802 Louise Circle, Poplar Apartments
- FRANK NICHOLAS EGERTON (1945), A.M., E.E.  
*Assistant Professor of Electrical Engineering* 411 North Gregson Street
- SAMUEL L. ELMON (1949), M.D.  
*Instructor in Medicine* 225 Green Street, Fayetteville, N. C.
- WILLIAM WHITFIELD ELLIOTT (1925), Ph.D.  
*Professor of Mathematics* Box 4721, Duke Station
- LEON HUBBARD ELLIS (1947), Ph.D.  
*Lecturer in Political Science* 2428 Perkins Road
- ERNEST ELSEVIER (1950), M.S. in M.E.  
*Assistant Professor of Mechanical Engineering* Route 1, Hillsboro, N. C.
- †SARAH WATSON EMERY (1951), Ph.D.  
*Visiting Lecturer in Philosophy* Chapel Hill, N. C.
- JOHN RICHARD EMMET (1952), M.D.  
*Instructor in Surgery* 2521 Pickett Road
- FRANK LIBMAN ENGEL (1947), M.D.  
*Associate Professor of Medicine and Associate in Physiology* 1302 Oakland Avenue

\* Resigned, November 1, 1952.

† Fall and spring semesters, 1951-52.

- JESSE HARRISON EPPERSON (1930), B.S.  
*Instructor in Preventive Medicine and Public Health* 1601 Hermitage Court
- DAVID V. ERDMAN (1952), Ph.D.  
*Visiting Professor of English* 2215 Cranford Road
- MARY ELLEN ESTILL (1949), Ph.D.  
*Instructor in Mathematics* J3A University Apartments
- JOHN WENDELL EVERETT (1932), Ph.D.  
*Professor of Anatomy* 2605 University Drive
- WILLIAM MARTIN FAIRBANK (1952), Ph.D.  
*Associate Professor of Physics* 2016 Pershing Street
- CARMEN M. FALCONE (1946), M.A.  
*Assistant Professor of Physical Education* University Apartments
- WILLIAM WINFREE FARLEY (1951), M.D.  
*Instructor in Pediatrics* 817 Hillsboro Street, Raleigh, N. C.
- BLAKE FAWCETT (1952), M.D.  
*Instructor in Surgery* 324 Monmouth Avenue
- JOHN MORTON FEIN (1950), Ph.D.  
*Assistant Professor of Romance Languages* 854 Louise Circle, Poplar Apartments
- JAMES RONE FELTS, JR. (1949)  
*Instructor in Hospital Administration* 700 Clement Avenue, Charlotte, N. C.
- ARTHUR BOWLES FERGUSON (1939), Ph.D.  
*Associate Professor of History* 209 Woodridge Drive
- GEORGE BURTON FERGUSON (1937), M.D.  
*Associate in Bronchoscopy* 3938 Dover Road, Hope Valley
- BERNARD F. FETTER (1951), M.D.  
*Associate in Pathology* 803 Demerius Street
- ROBERT JAMES FILER (1951), Ph.D.  
*Assistant Professor of Psychology* 915 Lambeth Circle, Poplar Apartments
- \*MARSHALL L. FISHER (1949), M.D.  
*Associate in Psychiatry* Roanoke, Va.
- WALTER CLEVELAND FITZGERALD (1951), M.D.  
*Instructor in Dermatology and Syphilology* 2 Chambers Street, Danville, Va.
- MRS. JULIA FLEMING (1949), R.N., B.S.  
*Instructor in Psychiatric Nursing* Hanes House
- WILLIAM JOHNSON FLEMING (1949), M.D.  
*Instructor in Medicine* Randolph Road
- WILEY DAVIS FORBUS (1930), M.D.  
*Professor of Pathology* 3309 Devon Road, Hope Valley
- CARLYLE JAMES FRAREY (1952), M.S.  
*Assistant Librarian* 819 Demerius Street
- RUSSELL A. FRASER (1952), Ph.D.  
*Instructor in English* 908 Shepherd Street
- CHARLES DARBY FULTON, JR. (1950), Sc.D.  
*Assistant Professor of Mechanical Engineering* 1614 University Drive
- †OLIVE VALERIA GALLOWAY (1950), B.S., B.S.N.Ed.  
*Clinical Instructor in Medical Nursing* 205 Cornwallis Road
- CLARENCE ELLSWORTH GARDNER, JR. (1930), M.D., D.Sc.  
*Professor of Surgery* 3106 Devon Road, Hope Valley

\* Resigned, August 31, 1952.

† Resigned, June 7, 1951.

ELIZABETH GARMAN (1952), R.N., B.S. <i>Instructor in Surgical Nursing</i>	Hanes House
NORMAN GARMEZY (1950), Ph.D. <i>Assistant Professor of Psychology</i>	3423 Hope Valley Road, Hope Valley
NICHOLAS G. GEORGAIDE (1951), D.D.S., M.D. <i>Associate in Oral Surgery</i>	2417 Bruton Road
JOHN JAY GERGEN (1936), Ph.D. <i>Professor of Mathematics</i>	2803 Nation Avenue
ALLAN H. GILBERT (1920), Ph.D. <i>Professor of English</i>	503 Compton Place
*MRS. KATHARINE EVERETT GILBERT (1930), Ph.D., Litt.D. <i>Professor of Philosophy</i>	503 Compton Place
STEPHEN ARNOLD GINN (1950), M.D. <i>Associate in Psychiatry</i>	2517 Glendale Avenue
RENÉ GIRARD (1952), Ph.D. <i>Instructor in Romance Languages</i>	1004 Carolina Avenue
JOHN GLASSON (1952), M.D. <i>Instructor in Orthopaedics</i>	1817 Hillcrest Drive
†GEORGE G. GLOCKLER (1952), Ph.D. <i>Visiting Lecturer in Chemistry</i>	3309 Avon Road, Hope Valley
CLARENCE GOHDES (1930), Ph.D. <i>Professor of English</i>	2614 Stuart Drive
JOSEPH LEONARD GOLDNER (1950), M.D. <i>Assistant Professor of Orthopaedics</i>	906 Demerius Street
JEWETT GOLDSMITH (1949), M.D. <i>Associate in Psychiatry</i>	918 Monmouth Avenue
WILLIAM LEWIS GORDON (1952), Ph.D. <i>Instructor in Mathematics</i>	802 Green Street
WALTER GORDY (1946), Ph.D. <i>Professor of Physics</i>	2521 Perkins Road
WILLIAM ALEXANDER GRAHAM (1938), M.D. <i>Instructor in Obstetrics and Gynecology</i>	2247 Cranford Road
RICHARD BABSON GRANT (1952), Ph.D. <i>Instructor in Romance Languages</i>	Apartment 4, 904 Second Street
LAWRENCE EUGENE GRAVES (1952), M.A. <i>Instructor in English</i>	2206 Pike Street
CYRUS L. GRAY (1952), M.D. <i>Instructor in Radiology</i>	219 Boulevard Street, High Point, N. C.
IRVING E. GRAY (1930), Ph.D. <i>Professor of Zoology</i>	124 Pinecrest Road
‡MAURICE H. GREENHILL (1940), M.D. <i>Associate Professor of Psychiatry</i>	Hope Valley
ROBERT H. GREKIN (1952), M.D. <i>Instructor in Dermatology and Syphilology</i>	Route 3, Hillsboro, N. C.
EUGENE GREULING (1948), Ph.D. <i>Associate Professor of Physics</i>	2414 Perkins Road
KEITH SANFORD GRIMSON (1930-42; 1945), M.D. <i>Professor of Surgery</i>	3313 Devon Road, Hope Valley

\* Died, April 28, 1952.

† Fall semester, 1952-53.

‡ Resigned, March 1, 1952.

- PAUL MAGNUS GROSS (1919), Ph.D.  
*William Howell Pegram Professor of Chemistry* 3816 Dover Road, Hope Valley
- JULIA REBECCA GROUT (1924), M.S.  
*Professor of Physical Education* 804 Fourth Street
- \*JOHN C. GUILDS (1948), M.A.  
*Instructor in English* 1005 Vickers Avenue
- NORMAN GUTTMAN (1951), Ph.D.  
*Assistant Professor of Psychology* 913 Lambeth Circle, Poplar Apartments
- ROSE HAHOLA (1952)  
*Instructor in Pediatric Nursing* Hanes House
- HOWARD N. HAINES (1943), B.S.  
*Instructor in Engineering* 2307 Club Boulevard
- MURRAY HALFOND (1952), Ph.D.  
*Associate in Medical Speech Pathology* 924 Lambeth Circle, Poplar Apartments
- FRANK GREGORY HALL (1926-42; 1945), Ph.D.  
*Professor of Physiology and Pharmacology* 122 Pinecrest Road
- LOUISE HALL (1931), B.A., S.B. in Architecture, Brevet d'Art  
*Associate Professor of Architecture* Box 6636, College Station
- WILLIAM HOLLAND HALL (1915), A.M., M.S.C.E.  
*Professor of Engineering* 922 Urban Avenue
- JOHN HAMILTON HALLOWELL (1942), Ph.D.  
*Professor of Political Science* 2709 Augusta Drive
- EDWIN CROWELL HAMBLÉN (1931), M.D.  
*Associate Professor of Obstetrics and Gynecology, and  
 Professor of Endocrinology* 810 Forest Hills Boulevard
- †GEORGE WALTER HAMBRICK, JR. (1952), M.D.  
*Associate in Dermatology and Syphilology* 8 Glenn Apartments
- WILLIAM BASKERVILLE HAMILTON (1936), Ph.D.  
*Professor of History* 2256 Cranford Road
- PHILIP HANDLER (1939), Ph.D.  
*Professor of Biochemistry and Nutrition* 2529 Perkins Road
- FRANK ALLAN HANNA (1948), Ph.D.  
*Professor of Economics* 2239 Cranford Road
- OSCAR CARL EDVARD HANSEN-PRÜSS (1930), M.D.  
*Professor of Medicine in Charge of Clinical Microscopy* 3303 Surrey Road, Hope Valley
- EARL THOMAS HANSON (1946), Ph.D.  
*Assistant Professor of Political Science* 613 Swift Avenue
- ELLWOOD SCOTT HARRAR (1936), Ph.D.  
*Professor of Wood Technology* 2228 Cranford Road
- ROBERT BRENT HARRELL (1950), A.B., Commander, U. S. Navy  
*Associate Professor of Naval Science* 1405 North Duke Street
- GEORGE PARKER HARRIS (1932), A.B.  
*Instructor in Hospital Administration* 2156 Colony Road, Charlotte, N. C.
- JEROME SYLVAN HARRIS (1936), M.D.  
*Professor of Pediatrics, and Associate Professor of Biochemistry* 1007 Rosehill Avenue
- FRANCIS PARKS HARRISON (1947), M.A.  
*Assistant Professor of Physical Education* 2511 Pickett Road
- HORNELL NORRIS HART (1938), Ph.D.  
*Professor of Sociology* 2535 Perkins Road

\* Resigned, August 31, 1952.

† Resigned, January 1, 1953.





- CALVIN BRYCE HOOVER (1925), Ph.D., Litt.D.  
*James B. Duke Professor of Economics* 1702 Duke University Road
- EDWARD CHARLES HORN (1946), Ph.D.  
*Assistant Professor of Zoology* 2509 Cascadilla Street
- STEPHEN FRANCIS HORNE (1950), M.D. 380 South Main Street, Rocky Mount, N. C.  
*Instructor in Dermatology and Syphilology*
- AUBREY HORNSBY (1953), M.D.  
*Assistant Professor of Radiology, and Chief of the  
Radiological Department, Veterans Hospital* Route 3, Chapel Hill, N. C.
- \*JAY BROADUS HUBBELL (1927), Ph.D., Litt.D.  
*Professor of English* 121 Pinecrest Road
- DON DOUGAN HUMPHIREY (1945), Ph.D.  
*Professor of Economics* 2802 Legion Avenue
- MRS. WANDA SANBORN HUNTER (1947), Ph.D.  
*Associate Professor of Zoology* 880 Louise Circle, Poplar Apartments
- †ROBERT STILWELL HUNTING (1949), Ph.D.  
*Instructor in English* St. Mary's Road
- THELMA INGLES (1949), R.N., M.A.  
*Assistant Professor of Nursing Education;  
Director, Division of Nursing Education* 854 Louise Circle, Poplar Apartments
- WILLIAM HENRY IRVING (1936), Ph.D.  
*Professor of English* 2707 Legion Avenue
- CHARLES EDWIN IRWIN (1946), M.D.  
*Lecturer in Orthopaedic Surgery* Duke Hospital
- ‡JAMES O. JACKSON (1950), M.D.  
*Instructor in Psychiatry* 419 Hilton Avenue
- JULIAN E. JACOBS (1936-38; 1947), M.D.  
*Lecturer in Orthopaedics* Duke Hospital
- †FRANCES CAROLINE JEFFERS (1947), A.M.  
*Assistant Professor of Nursing Education* Baker House
- MARIANNA DUNCAN JENKINS (1948), Ph.D.  
*Associate Professor of Art* 1026 Minerva Avenue
- \*\*HOWARD EIKENBERRY JENSEN (1931), Ph.D.  
*Professor of Sociology* 143 Pinecrest Road
- FREDERICK CHARLES JOERG (1947), M.B.A.  
*Associate Professor of Economics* 1400 Oakland Avenue
- †AMOS N. JOHNSON (1949), M.D.  
*Instructor in General Practice of Medicine* Garland, N. C.
- CHARLES E. JOHNSON (1952), M.A.  
*Instructor in English* 1400 Duke University Road
- DOROTHY JOHNSTON (1952), R.N., B.S., C.P.H.N.  
*Assistant Professor of Nursing Education* 107 Hanes House
- ††CARL CANDLER JONES, JR. (1950), M.D.  
*Instructor in Medicine* 2623 Lawndale Avenue
- ARCHIBALD CURRIE JORDAN (1925), M.A.  
*Assistant Professor of English* 147 Pinecrest Road

\* Absent on leave, spring semester, 1953.

† Resigned, August 31, 1952.

‡ Resigned, December 31, 1951.

\*\* Absent on sabbatical leave, spring semester, 1952-53.

†† Resigned, June 30, 1952.

- \*BRADY RIMBEY JORDAN (1927), Ph.D.  
*Professor of Romance Languages* 117 Pinecrest Road
- HELEN LOUISE KAISER (1943), R.P.T.T.  
*Assistant Professor of Physical Rehabilitation* 804 Fourth Street
- W. ARTHUR KALE (1952), B.D., D.D.  
*Professor of Practical Theology* 1011 Dacian Avenue
- HENRY KAMIN (1948), Ph.D.  
*Associate in Biochemistry* J3C University Apartments
- †SEYMOUR ROBERT KAPLAN (1950), M.D.  
*Associate in Psychiatry* 1106 Alabama Avenue
- WALTER KEMPNER (1934), M.D.  
*Professor of Medicine* 1505 Virginia Avenue
- HAYWARD KENISTON (1952), Ph.D.  
*Visiting Lecturer in Romance Languages* 214 Faculty Apartments
- JAMES STEWART KENNEDY (1951), B.S., Lieutenant, U. S. Navy  
*Assistant Professor of Naval Science* 1613 Dexter Street
- VAN LESLIE KENYON, JR. (1945), M.M.E.  
*Assistant Professor of Mechanical Engineering* Route 2, Hillsboro, N. C.
- GRACE PARDRIDGE KERBY (1947), M.D.  
*Associate in Medicine* 28 H Poplar Apartments
- DWIGHT TALMADGE KERNODLE (1952), M.D.  
*Instructor in Medicine* Route 1, Elon College, N. C.
- GEORGE WALLACE KERNODLE (1949), M.D.  
*Instructor in Pediatrics* 305 West Front Street, Burlington, N. C.
- EILEEN DOROTHY KIERNAN (1952), R.N., B.S. in N.Ed.  
*Instructor in Nursing of Prematures* 854 Louise Circle, Poplar Apartments
- GREGORY A. KIMBLE (1952), Ph.D.  
*Associate Professor of Psychology* 1808 Hillcrest Drive
- JOHN TALBERT KING (1951), M.D.  
*Instructor in Pediatrics* 306 West Davis Street, Burlington, N. C.
- EDWARD P. KINGSBURY (1952), M.D.  
*Instructor in Pediatrics* 403 Jackson Street
- ‡VERNON KINROSS-WRIGHT (1949), B.M. (Oxon.), D.P.M.  
*Associate in Psychiatry; Director of Durham  
 Child Guidance Clinic* Box 79, Route 3, Durham, N. C.
- WILLIAM KLENZ (1947), M.A.  
*Assistant Professor of Music* 26 Alastair Court
- \*\*WALTER KLOPPER (1950), Ph.D.  
*Assistant Professor of Psychology, and Psychologist in the  
 Department of Psychiatry* 2617 Acadia Street
- ROBERT J. KNIGHT, JR. (1952), B.S., Colonel, U. S. Air Force  
*Professor of Air Science and Tactics* 2107 Wilson Street
- ††SIGMUND KOCH (1942-47; 1948), Ph.D.  
*Associate Professor of Psychology* 2921 Horton Road
- CLARENCE FERDINAND KORSTIAN (1930), Ph.D.  
*Professor of Silviculture* 4 Sylvan Road
- †GEORGE ELI KOURY (1951), M.D.  
*Visiting Instructor in Medicine* Burlington, N. C.

\* Absent on sabbatical leave, spring semester, 1952-53.

† Resigned, August 31, 1952.

‡ Resigned, September 1, 1952.

\*\* Resigned, June 30, 1952.

†† Absent on leave, 1952-53.

- PAUL JACKSON KRAMER (1931), Ph.D.  
*Professor of Botany* 2251 Cranford Road
- ROBERT KRAMER (1947), LL.B.  
*Professor of Law* 108 Pinecrest Road
- EDWARD K. KRAYBILL (1939), M.S.E.  
*Assistant Professor of Electrical Engineering* 900 Dacian Avenue
- ROBERT JOSEPH KUBISZEWSKI (1952), B.N.S., Lieutenant, U. S. Navy  
*Assistant Professor of Naval Science* 814 Green Street
- GEORGE FREDERICK KUDER (1948), Ph.D.  
*Professor of Psychology* 2516 Perkins Road
- EDWARD CHARLES KUNKLE (1948), M.D.  
*Associate Professor of Medicine in Charge of Neurology* 2525 Perkins Road
- WESTON LABARRE (1946), Ph.D.  
*Associate Professor of Anthropology* 1311 Alabama Avenue
- CHARLES EARL LONDON (1926), Ph.D.  
*Associate Professor of Economics* 1514 Edgevale Road
- WILLIAM GUERRANT LANE (1952), A.M.  
*Instructor in English* 120 West Seeman Street
- JOHN TAIE LANNING (1927), Ph.D.  
*Professor of History* 3007 Surrey Road, Hope Valley
- WILLIAM THOMAS LAPRADE (1909), Ph.D.  
*Professor of History* 1108 Monmouth Avenue
- JOHN E. LARSH, JR. (1943), Sc.D.  
*Associate in Parasitology* Duke Hospital
- ELVIN REMUS LATTY (1937), J.D., J.Sc.D.  
*Professor of Law* 3620 Hathaway Road, Hope Valley
- CLARENCE WILLIAM LEGERTON, JR. (1951), M.D.  
*Instructor in Medicine* 713 Anderson Street
- \*EDGAR H. LEHRMAN (1951), M.A.  
*Instructor in Russian Language and Literature* 818 Third Street
- BENJAMIN FRANKLIN LEMIRI (1930), Ph.D.  
*Associate Professor of Economics* 123 Pinecrest Road
- HAROLD WALTER LEWIS (1949), Ph.D.  
*Assistant Professor of Physics* 2307 Sprunt Street
- MARTHA MODENA LEWIS (1933), M.A.  
*Associate Professor of Physical Education* 407 Erwin Apartments
- RALPH ELTON LEWIS (1941), M.S. in M.E.  
*Assistant Professor of General Engineering* 1401 Alabama Avenue
- \*ROBERT GUILFORD LEWIS (1949), Ph.D.  
*Instructor in Romance Languages* Alastair Apartments
- †JOSEPH H. LITTLE (1951), M.A.  
*Instructor in Education* 821 Demerius Street
- CHARLES HARRIS LIVENGOOD, JR. (1946), LL.B.  
*Professor of Law* 2804 Chelsea Circle, Hope Valley
- \*MARIO LLERENA (1948), Doctor en Filosofía y Letras  
*Instructor in Romance Languages* Duke University Apartments
- ARTHUR HILL LONDON, JR. (1932), M.D.  
*Associate in Pediatrics* 306 South Gregson Street

\* Resigned, August 31, 1952.

† Resigned, June 30, 1952.

- FREDERICK LONDON (1938), Ph.D., D. ès Sc.  
James B. Duke Professor of Chemical Physics 1508 Oakland Avenue
- \*WILLIAM F. LOVELL (1950), M.D.  
Instructor in Medicine 103 Club Boulevard
- HANS LÖWENBACH (1940), M.D.  
Associate Professor of Psychiatry and Physiology Box 79, Route 3, Durham, N. C.
- †CHARLES LUCIEN BAKER LOWNDES (1934), S.J.D.  
James B. Duke Professor of Law 2016 Club Boulevard
- AMANDA LUEDECKE (1952), R.N., B.S. in N.Ed.  
Instructor in Psychiatric Nursing Duke Hospital
- OSKAR HELGE LUNDHOLM (1930), Ph.D.  
Professor of Psychology 803 Second Street
- EMMIETT S. LUTON (1952), M.D.  
Instructor in Dermatology and Syphilology 102 Taisley, Greensboro, N. C.
- ANGUS M. MCBRYDE (1931), M.D.  
Associate Professor of Pediatrics 410 East Forest Hills Boulevard
- JOHN P. MCBRYDE (1950), M.A., Lt. Colonel, U. S. Air Force  
Associate Professor of Air Science 2524 State Street
- JOSEPH ADOLPHUS MCCLAIN, JR. (1950), J.S.D., LL.D.  
Professor of Law 2021 Myrtle Drive
- JOSEPH P. MCCrackEN (1946), M.D.  
Instructor in Medicine 126 Pinecrest Road
- FORREST DRAPER MCCREA (1930), Ph.D.  
Associate Professor of Physiology and Pharmacology 1023 Demerius Street
- MALCOM McDERMOTT (1930), LL.B.  
Professor of Law Route 2, Linden Road
- GELOLO McHUGH (1946), Ph.D.  
Assistant Professor of Psychology 1413 Watts Street
- LIONEL WILFRED MCKENZIE, JR. (1948), M.A.  
Assistant Professor of Economics 18 Alastair Court, 300 Swift Avenue
- JONATHAN COLLINS McLENDON (1952), Ph.D.  
Assistant Professor of Education 937 Lambeth Circle, Poplar Apartments
- ‡CLARENCE MCCAIN McMURRAY (1950), M.D.  
Instructor in Medicine 821 Demerius Street
- LEWIS J. McNURLEN (1952), M.A.  
Instructor in Sociology 1818 Glendale Avenue
- SAMUEL D. MCPHERSON, JR. (1949), M.D.  
Instructor in Ophthalmology 1520 Hermitage Court
- DOUGLAS BLOUNT MAGGS (1930), J.D., S.J.D.  
Professor of Law 3940 Dover Road, Hope Valley
- \*\*WILLIAM WAILES MAGRUDER (1946), M.D.  
Instructor in Psychiatry Duke Hospital
- ALAN KREBS MANCIESTER (1929), Ph.D.  
Professor of History 2016 Myrtle Drive
- PAUL FRANKLIN MANESS (1949), M.D.  
Instructor in Pediatrics 305 North Front Street, Burlington, N. C.
- JETHRO OATES MANLY (1952), B.S.  
Instructor in Botany 907 Lambeth Circle, Poplar Apartments

\* Resigned, August 31, 1952.

† Absent on sabbatical leave, spring semester, 1952-53.

‡ Resigned, December 18, 1951.

\*\* Resigned, June 30, 1952.

- EVERETT JAMES MANN (1950), M.B.A., C.P.A.  
*Associate Professor of Accounting* 1712 Roxboro Road
- JAMES C. MANRY (1952), Ph.D.  
*Visiting Professor of the History of Religion and Missions* 215 Faculty Apartments
- GEORGE MARGOLIS (1947), M.D.  
*Associate Professor of Pathology* 2417 Perkins Road
- JOSEPH ELDRIDGE MARKEE (1943), Ph.D.  
*James B. Duke Professor of Anatomy* 1015 Demerius Street
- SIDNEY DAVID MARKMAN (1947), Ph.D.  
*Associate Professor of Art History and Archaeology* 10 Duke University Apartments
- MRS. ELSIE W. MARTIN (1930), M.S.  
*Professor of Dietetics* 206 Faculty Apartments
- MRS. RUTH CAMPBELL MARTIN (1944), M.D.  
*Assistant Professor of Anesthesiology  
and Assistant Anesthetist* 113 Pinecrest Road
- SAMUEL PRESTON MARTIN (1949), M.D.  
*Assistant Professor of Medicine and Bacteriology* 113 Pinecrest Road
- LUCY ETHELYN MASSEY (1949), R.N., M.A.  
*Assistant Professor of Public Health Nursing* Chapel Hill, N. C.
- FRANCIS WYNNE MASTERS (1952), M.D.  
*Instructor in Plastic Surgery* 2305 Elder Street
- \*MRS. ANNE POWELL MATTHIAS (1950), M.S.  
*Instructor in Physical Education* Chapel Hill, N. C.
- WILLIAM CARY MAXWELL (1930), Ph.D.  
*Associate Professor of German* 142 Pinecrest Road
- †THEODORE H. MEES (1951), M.D.  
*Instructor in Medicine* 1824 Forest Road
- OTTO MEIER, JR. (1934), M.S., E.E.  
*Associate Professor of Electrical Engineering* 916 Monmouth Avenue
- ELIJAH EUGENE MENEFFEE, JR. (1940), M.D.  
*Associate Professor of Medicine* 2205 Cranford Road
- MRS. ANN REID MERZBACHER (1952), A.B.  
*Instructor in Mathematics* 306 Church Street, Chapel Hill, N. C.
- JAMES T. METZGER (1952), M.D.  
*Associate in Plastic and Oral Surgery* 814 Watts Street
- ‡M. VICTOR MICHALAK (1950), A.M.  
*Instructor in Speech* 2722 Brown Avenue
- OSCAR LEE MILLER (1946), M.D.  
*Lecturer in Orthopaedic Surgery* Charlotte, N. C.
- FRANK KIRBY MITCHELL (1926), A.M.  
*Associate Professor of English* 619 Swift Avenue
- IRVING WARD MOHR (1952), D.D.S.  
*Instructor in Oral Surgery* Duke Hospital
- WILFRIED F. H. M. MOMMAERTS (1948), Ph.D.  
*Lecturer in Biochemistry* 854 Louise Circle, Poplar Apartments
- ROBERT JOHN MONTFORT (1940), B.A.  
*Associate Professor of Physical Education* 3300 Cole Mill Road
- \*JAMES DONALDSON MOODY (1948), M.D.  
*Associate in Surgery* 2708 Legion Avenue

\* Resigned, August 31, 1952.

† Resigned, June 30, 1952.

‡ Absent on leave, 1952-53.



- \*LOUISE G. MOSER (1949), R.N., M.N.  
*Assistant Professor of Nursing Education and Director,  
 Program in Advanced Psychiatric Nursing* 1004 Markham Avenue
- EARL GEORGE MUELLER (1945), B.M., M.A., M.F.A.  
*Assistant Professor of Art* 1212 Virginia Avenue
- MRS. JULIA WILKINSON MUELLER (1939-41; 1946), M.A.  
*Assistant Professor of Music* 1212 Virginia Avenue
- †RICHARD J. F. MURPHY (1948), M.D., C.M.  
*Instructor in Medicine* 1203 Ruffin Street
- ROBERT J. MURPHY, JR. (1950), M.D.  
*Associate in Pediatrics* Chapel Hill, N. C.
- HIRAM EARL MYERS (1926), S.T.M., D.D.  
*Professor of Biblical Literature* 141 Pinecrest Road
- JACK DUANE MYERS (1947), M.D.  
*Associate Professor of Medicine* 713 Anderson Street
- JAMES B. MYERS (1952), A.B., Major, U. S. Air Force  
*Instructor in Air Science* McArthur Apartments No. 2, Butner Street
- MRS. JESSICA H. LEWIS MYERS (1950), M.D.  
*Associate in Medicine* 713 Anderson Street
- \*GEORGE W. NACE (1951), Ph.D.  
*Assistant Professor of Zoology* Department of Zoology
- \*HELEN NAHM (1946), R.N., M.S., Ph.D.  
*Professor of Nursing Education, and Director  
 Division Nursing Education* Faculty Apartments
- AUBREY WILLARD NAYLOR (1952), Ph.D.  
*Associate Professor of Botany* 881 Louise Circle, Poplar Apartments
- GLENN ROBERT NEGLEY (1946), Ph.D.  
*Professor of Philosophy* 1700 Shawnee Street
- ERNEST WILLIAM NELSON (1926), Ph.D.  
*Associate Professor of History* 939 Lambeth Circle, Poplar Apartments
- BARBARA CAROL NEWBORG (1952), M.D.  
*Instructor in Medicine* Box 3519, Duke Hospital
- †MRS. DOROTHY FRANCE NEWCOMER (1949), M.S.  
*Instructor in Physical Education* 816 Buchanan Boulevard
- HENRY WINSTON NEWSON (1948), Ph.D.  
*Professor of Physics* 1111 North Gregson Street
- WILLIAM MCNEAL NICHOLSON (1935), M.D.  
*Professor of Medicine in Charge of Postgraduate Education,  
 and Diseases of Metabolism* 824 Anderson Street
- WALTER MCKINLEY NIELSEN (1925), Ph.D.  
*James B. Duke Professor of Physics* 139 Pinecrest Road
- LOTHAR WOLFGANG NORDHEIM (1937), Ph.D.  
*Professor of Physics* 2255 Cranford Road
- WILLIAM K. NOWILL (1951), M.D.  
*Assistant Professor of Anesthesiology* 2604 Glendale Avenue
- JOHN M. OCKER (1951), B.S., Captain, U. S. Navy  
*Professor of Naval Science* 2101 Myrtle Drive
- GUY LEARY ODOM (1943), M.D.  
*Professor of Neurosurgery* 2812 Chelsea Circle, Hope Valley

\* Absent on leave, 1952-53.

† Resigned, August 31, 1952.

- HENRY JOHN OOSTING (1932), Ph.D.  
*Professor of Botany* 2642 University Drive
- EDWARD STEWART ORGAIN (1934), M.D.  
*Professor of Medicine* 3321 Devon Road, Hope Valley
- \*EFFIE MARIE OSTERMAN (1950), R.N., M.A.  
*Assistant Professor of Nursing Education* 1102 Monmouth Avenue
- DEWEY A. OSTROM (1951), B.A., Lieutenant Commander, U. S. Navy  
*Assistant Professor of Naval Science and Tactics* 2507 Shenandoah Avenue
- HARRY ASHTON OWEN (1951), B.S. in E.E., M.S.E.  
*Assistant Professor of Electrical Engineering* Hillandale Road
- AUBREY EDWIN PALMER (1944), B.S. in Engr., C.E.  
*Assistant Professor of Civil Engineering* 2519 State Street
- LEONARD PALUMBO (1950), M.D.  
*Associate in Obstetrics and Gynecology* 1116 Ninth Street
- HAROLD TALBOT PARKER (1939), Ph.D.  
*Associate Professor of History* 12 Glenn Apartments, Dacian Avenue
- JOSEPH B. PARKER, JR. (1953), M.D.  
*Associate Professor of Psychiatry, and  
Chief of Psychiatry at Veterans Hospital* 2921 Horton Road
- WILLIAM THOMAS PARROTT, JR. (1951), M.D.  
*Instructor in Medicine* 109 East Gordon Street, Kinston, N. C.
- FRANCIS PASCHAL (1952), LL.B., Ph.D.  
*Visiting Lecturer in Law* Raleigh, N. C.
- KARL BACHIMAN PATTERSON (1920), A.M.  
*Assistant Professor of Mathematics* 1024 Monmouth Avenue
- ROBERT LEET PATTERSON (1945), Ph.D.  
*Professor of Philosophy* Washington Duke Hotel
- LEWIS PATTON (1926), Ph.D.  
*Associate Professor of English* 614 Swift Avenue
- WILLIAM BERNARD PEACH (1951), Ph.D.  
*Assistant Professor of Philosophy* 924 Lambeth Circle, Poplar Apartments
- RICHARD LEIIMER PEARSE (1938), M.D.  
*Instructor in Obstetrics and Gynecology* 1325 Arnette Avenue
- TALMADGE LEE PEELE (1939), M.D.  
*Associate Professor of Anatomy, and Assistant Professor of Medicine* E2B University Apartments
- KENNETH E. PENROD (1950), Ph.D.  
*Associate Professor of Physiology and Pharmacology,  
and Assistant to the Dean of the School of Medicine* 1815 Hillcrest Drive
- EDMUND FRANKLIN PERRY (1950), Ph.D.  
*Instructor in Undergraduate Religion* 7 Alastair Apartments, 300 Swift Avenue
- HAROLD SANFORD PERRY (1932), Ph.D.  
*Associate Professor of Botany* 2302 Cranford Road
- ELBERT LAPSLEY PERSONS (1930), M.D.  
*Associate Professor of Medicine, and Associate Professor of  
Preventive Medicine and Public Health* 723 Anderson Street
- WALTER SCOTT PERSONS (1930), A.B.  
*Assistant Professor of Physical Education* 612 Swift Avenue
- RUTH LOHMANN PESCHEL (1951), M.D.  
*Associate in Medicine* 2306 Pershing Street

\* Resigned, August 31, 1952.

- RAY C. PETRY (1937), Ph.D., LL.D.  
*Professor of Church History* 128 Pinecrest Road
- OLAN LEE PETTY (1952), Ph.D.  
*Assistant Professor of Education* 115 Faculty Apartments, East Campus
- JOHN BERNARD PFEIFFER, JR. (1949), M.D.  
*Assistant Professor of Medicine* University Apartments
- JAMES HENRY PHILLIPS (1946), Ph.D.  
*Assistant Professor of Biblical Literature* 2519 Perkins Road
- \* RICHARD H. PHILLIPS (1950), M.D.  
*Associate in Psychiatry* 2515 Pickett Road
- JANE PHILPOTT (1951), Ph.D.  
*Assistant Professor of Botany* 804 Fourth Street
- MARSHALL IVEY PICKENS (1932), M.A.  
*Lecturer in Hospital Administration* 2000 Beverly Drive, Charlotte, N. C.
- HENRY FLOYD PICKETT (1935), A.B.  
*Instructor in Medical Art and Illustration, and Photographer* 2506 Cornwallis Road
- KENNETH LEROY PICKRELL (1944), M.D.  
*Professor of Plastic Surgery* 3 Sylvan Road
- † IRVING PINE (1949), M.D.  
*Associate in Psychiatry* 1701 Englewood Avenue
- VICTOR A. POLITANO (1952), M.D.  
*Instructor in Urology* 500 East Markham Avenue
- HILDA PERSONS POPE (1948), Ph.D.  
*Assistant Professor of Bacteriology* 802 Louise Circle, Poplar Apartments
- † FRANCIS ROSS PORTER (1930), B.S.  
*Superintendent of the Hospital and Professor of Hospital Administration* Hillsboro, N. C.
- MARY ALVERTA POSTON (1930), A.M.  
*Associate in Bacteriology* 512 Watts Street
- \*\* MARY POTEAT (1935), Ph.D.  
*Assistant Professor of English* 103 Faculty Apartments
- BENJAMIN E. POWELL (1946), Ph.D.  
*Librarian* 3609 Hathaway Road, Hope Valley
- LEON W. POWELL, JR. (1952), M.D.  
*Instructor in Pathology* 912 East Club Boulevard
- CHARLES E. PRALL (1949), Ph.D.  
*Visiting Lecturer in Hospital Administration* 1001 Hill Street, Greensboro, N. C.
- LANIER WARD PRATT (1940), M.A.  
*Instructor in Romance Languages* 2007 Ruffin Street
- RICHARD LIONEL PREDMORE (1950), D.M.L.  
*Professor of Romance Languages* 2413 Perkins Road
- JAMES L. PRICE, JR. (1952), Ph.D.  
*Assistant Professor of Undergraduate Religion* 915 Arnette Avenue
- JAMES MINETREE PYNE (1949), B.S.  
*Assistant Professor of Hospital Administration and  
 Assistant Superintendent of the Hospital* 1832 Forest Road
- GEORGE JUSTICE RACE (1951), M.D.  
*Associate in Pathology* 809 Louise Circle, Poplar Apartments

\* Resigned, December 31, 1951.

† Resigned, March 1, 1952.

‡ Absent on leave, October 1, 1952 to December 1, 1953.

\*\* Absent on sabbatical leave, spring semester, 1952-53.

- \*JACKSON V. RAMBEAU (1949), Ph.B., Colonel, U. S. Air Force  
*Associate Professor of Air Science* 2421 Perkins Road
- RICHARD BEVERLY RANEY (1934), M.D.  
*Lecturer in Orthopaedic Surgery* 1110 Shepherd Street
- ROBERT STANLEY RANKIN (1927), Ph.D.  
*Professor of Political Science* 1107 Knox Street
- WATSON SMITH RANKIN (1932), M.D., D.Sc. 2049 Briarwood Road, Charlotte, N. C.  
*Visiting Lecturer in Hospital Administration*
- EDWARD SHORE RAPER (1934), A.B.  
*Instructor in Hospital Administration* 2317 Club Boulevard
- JOSEPHINE RAPPAPORT (1952), R.N., M.A.  
*Assistant Professor of Nursing Education* 101 Faculty Apartments
- CHARLES LEWIS RAST, JR. (1952), M.D.  
*Instructor in Medicine* 2302 Cranford Road
- BENJAMIN ULYSSES RATCHFORD (1928), Ph.D.  
*Professor of Economics* 133 Pinecrest Road
- ALBERT E. RAUHL (1949), M.D.  
*Associate in Neurology* Roanoke, Va.
- †LEONARD J. RAVITZ (1950), M.D.  
*Associate in Psychiatry* Roanoke, Va.
- BENJAMIN SMITH READ (1952), B.A., Major, U. S. Marine Corps  
*Assistant Professor of Naval Science* 1023 Lakewood Avenue
- ISRAEL THOMAS REAMER (1931), Ph.G.  
*Associate in Pharmacy* 2114 Woodrow Street
- KENNETH JAMES REARDON (1947), A.M.  
*Associate Professor of English* 2610 Duke Homestead Road
- FREDERICK JEROME REED (1935), M.E., M.S.  
*Associate Professor of Mechanical Engineering* 2203 Englewood Avenue
- †ENNIS SAMUEL REES (1949), Ph.D.  
*Instructor in English* 1813 Hillcrest Drive
- ROBERT JAMES REEVES (1930), M.D.  
*Professor of Radiology* 920 Anderson Street
- \*\*EDWIN KELSEY REGEN (1951), B.D., D.D.  
*Visiting Lecturer in Practical Theology* 1106 Watts Street
- HUGO MANLEY REICHARD (1951), Ph.D.  
*Instructor in English* Duke University Apartments
- MRS. WALLY REICHENBERG-HACKETT (1946), Ph.D.  
*Assistant Professor of Psychology* Route 1, Erwin Road
- FREDERICK P. RENKEN (1950), B. Arch., Major, U. S. Air Force  
*Assistant Professor of Air Science* 2523 State Street
- †THOMAS EUGENE RENTZ (1949; 1951), M.A.  
*Instructor in Romance Languages* 2252 Cranford Road
- JOSEPH BANKS RHINE (1927), Ph.D.  
*Director of Parapsychology Laboratory* 908 West Club Boulevard
- †CLAUDE HENRY RICHARDS, JR. (1946), Ph.D.  
*Assistant Professor of Political Science* 880 Louise Circle, Poplar Apartments

\* Resigned, October 16, 1952.

† Resigned, December 31, 1952.

‡ Resigned, August 31, 1952.

\*\* Fall semester, 1952-53.

BARBARA JANE RIEBEL (1951), M.S. <i>Instructor in Physical Education</i>	806 West Club Boulevard
*PETER RIESER (1951), Ph.D. <i>Research Associate in Zoology</i>	881 Louise Circle, Poplar Apartments
*JOSEPH CLARKE ROBERT (1938), Ph.D. <i>Professor of History</i>	1102 B Street
HENRY STOUTTE ROBERTS, JR. (1948), Ph.D. <i>Associate Professor of Zoology</i>	Box 221, Route 5
JOHN HENDERSON ROBERTS (1931), Ph.D. <i>Professor of Mathematics</i>	2813 Legion Avenue
WILLIAM M. ROBERTS (1950), M.D. <i>Lecturer in Orthopaedics</i>	Gastonia, N. C.
†CHARLES B. ROBESON (1952), Ph.D. <i>Visiting Lecturer in Political Science</i>	Chapel Hill, N. C.
ELIOT H. RODNICK (1949), Ph.D. <i>Professor of Psychology, and Director of Clinical Training in Psychology</i>	2806 Legion Avenue
E. STANFIELD ROGERS (1952), M.D. <i>Assistant Professor of Pathology</i>	602 Ruby Street
ROBERT SAMUEL ROGERS (1937), Ph.D., F.A.A.R. <i>Professor of Latin</i>	148 Pinecrest Road
THEODORE ROPP (1938), Ph.D. <i>Associate Professor of History</i>	302 Woodridge Drive
JESSE LEE ROSE (1936), Ph.D. <i>Associate Professor of Latin and Greek</i>	East Campus
NORMAN F. ROSS (1937), D.D.S. <i>Associate in Dentistry</i>	Chelsea Circle, Hope Valley
ROBERT ALEXANDER ROSS (1930), M.D. <i>Lecturer in Obstetrics and Gynecology</i>	818 Anderson Street
DONALD FRANCIS ROY (1950), Ph.D. <i>Assistant Professor of Sociology</i>	904 Shepherd Street
MARVIN PIERCE RUCKER (1941), M.D., LL.D. <i>Lecturer in Obstetrics and Gynecology</i>	Richmond, Va.
‡JOHN JESSE RUDIN, II (1945), Ph.D. <i>Associate Professor of Speech</i>	1019 Rosehill Avenue
MABEL F. RUDISILL (1948), Ph.D. <i>Associate Professor of Education</i>	213 West Markham Avenue
*VICTOR JOHN RUDOLPH (1948), D.F. <i>Assistant Professor of Forest Management</i>	617 Swift Avenue
JULIAN MEADE RUFFIN (1930), M.D. <i>Professor of Medicine</i>	816 Anderson Street
RALPH WAYNE RUNDLES (1945), Ph.D., M.D. <i>Associate Professor of Medicine</i>	132 Pinecrest Road
REAMES HAWTHORNE SALES (1949), B.D., Ph.D. <i>Instructor in Undergraduate Religion</i>	2800 University Drive
MURIEL I. SANDEEN (1950), Ph.D. <i>Instructor in Zoology</i>	806 West Club Boulevard
CHARLES RICHARD SANDERS (1937), Ph.D. <i>Professor of English</i>	103 Pinecrest Road

\* Resigned, August 31, 1952.

† Fall semester, 1952-53.

‡ Absent on sabbatical leave, spring semester, 1952-53.



- MRS. EUGENIA CURTIS SAVILLE (1947), M.A.  
*Assistant Professor of Music* 1103 Anderson Street
- LLOYD BLACKSTONE SAVILLE (1946), Ph.D.  
*Associate Professor of Economics* 1103 Anderson Street
- JOHN HENRY SAYLOR (1928), Ph.D.  
*Professor of Chemistry* 707 West Club Boulevard
- THOMAS ANTON SCHAFER (1950), B.D.  
*Assistant Professor of Historical Theology* 903 West Proctor Street
- CLARENCE HENRY SCHETTTLER (1946), Ph.D.  
*Associate Professor of Sociology* 119 Pinecrest Road
- HERMAN MAX SCHIEBEL (1939), M.D.  
*Associate in Surgery* 1020 Anderson Street
- \*JAMES F. SCHIEVE (1949), D.V.M., M.D.  
*Instructor in Medicine* 2312 Wilson Street
- KNUT SCHMIDT-NIELSEN (1952), Mag.Sc., Ph.D.  
*Professor of Zoology* 2402 Chapel Hill Road
- FRANCIS XAVIER SCHUMACHER (1937), B.S.  
*Professor of Forestry* 6 Sylvan Road
- THEODORE B. SCHWARTZ (1948), M.D.  
*Associate in Medicine* 854 Louise Circle, Poplar Apartments
- ESTHER LOUISE SCHWERMAN (1947), Ph.D.  
*Assistant Professor of English* 909 Lambeth Circle, Poplar Apartments
- GEORGE WILLIAM SCHWERT, JR. (1946), Ph.D.  
*Associate Professor of Biochemistry* 611 Hammond Street
- WILL CAMP SEALY (1946), M.D.  
*Associate Professor in Charge of Thoracic Surgery Division* 2232 Cranford Road
- WALTER JAMES SEELEY (1925), E.E., M.S.  
*James B. Duke Professor of Electrical Engineering* 1005 Urban Avenue
- DAVID GORDON SHARP (1939), Ph.D.  
*Associate Professor of Biophysics in Experimental Surgery,  
and Biophysicist to Duke Hospital* 202 Francis Street
- LAMBERT ARMOUR SIEARS (1927), Ph.D.  
*Associate Professor of German* 804 Yancey Street
- MILDRED MARGUERITE SHERWOOD (1930), R.N.  
*Associate in Pediatric Nursing* Hanes House
- JOHN HERMAN SHIELDS (1926), A.M.  
*Associate Professor of Accounting* 1315 Vickers Avenue
- WILLIAM WARNER SHINGLETON (1947), M.D.  
*Assistant Professor of Surgery* 1510 Carolina Avenue
- ELWOOD BRENT SHIRLING (1952), M.S.  
*Instructor in Botany* 872 Louise Circle, Poplar Apartments
- JOSEPH ROBERT SHOENFIELD (1952), B.S.E., M.S.  
*Instructor in Mathematics* 1010 West Trinity Avenue
- †ZACHARIAH S. SIKES, JR. (1950), M.D.  
*Associate in Psychiatry* Duke Hospital
- GEORGE ADDISON SILVER, III (1946), M.D.  
*Assistant Professor of Psychiatry* 2005 Arbor Street
- ‡SEYMOUR BERTRAM SILVERMAN (1950), M.D.  
*Associate in Pathology* 2724 Stuart Drive

\* Resigned, June 30, 1952.

† Resigned, December 31, 1951.

‡ Resigned, August 31, 1952.

- EDWARD CHRISTIAN SIMMONS (1947), Ph.D.  
*Professor of Economics* 2510 Perkins Road
- WILLIAM HAYS SIMPSON (1930), Ph.D.  
*Associate Professor of Political Science* 1406 Dollar Avenue
- WILLIAM VANCE SINGLETARY (1948), M.D.  
*Instructor in Medicine* 306 South Gregson Street
- MARY CLYDE SINGLETON (1950), B.S., R.P.T.T.  
*Instructor in Physical Therapy* 2039 Englewood Avenue
- BENJAMIN SMITH SKINNER (1946), M.D.  
*Instructor in Pediatrics* 403 Jackson Street
- \* JAMES MATTHEW SLAY (1946), M.A.  
*Instructor in Education* 1222 Arnette Avenue
- ALBERT G. SMITH (1951), M.D.  
*Associate in Pathology* 886 Louise Circle, Poplar Apartments
- DAVID TILLERSON SMITH (1930), M.D., Litt.D.  
*Professor of Bacteriology, and Associate Professor of Medicine* 3437 Dover Road, Hope Valley
- † DOROTHY MARY SMITH (1950), R.N., M.Ed.  
*Assistant Professor of Nursing Education, and Director, Division of Nursing Education* 205 Cornwallis Road
- FRANK M. SMITH (1951), M.A., Captain, U. S. Air Force  
*Assistant Professor of Air Science* 1425 Pennsylvania Avenue
- GROVER C. SMITH, JR. (1952), Ph.D.  
*Instructor in English* 866 Louise Circle, Poplar Apartments
- HILRIE SHELTON SMITH (1931), Ph.D., D.D., Litt.D.  
*James B. Duke Professor of American Religious Thought* Manchester Apartments  
813 Second Street
- ROBERT SIDNEY SMITH (1932), Ph.D.  
*Professor of Economics* 2236 Cranford Road
- ‡ MRS. SUSAN GOWER SMITH (1930), M.A.  
*Associate in Nutrition* 3437 Dover Road, Hope Valley
- \*\* MARY HELEN SNIVELY (1930), M.A., A.N.A.  
*Associate in Anesthesiology* 2913 Horton Road
- WILLIAM BREWSTER SNOW (1948), Sc.D.  
*Associate Professor of Civil Engineering* 1022 West Trinity Avenue
- RAYMOND STEPHEN SORENSEN (1952), M.S. in P.E.  
*Instructor in Physical Education* 1211 Ruffin Street
- JOSEPH JOHN SPENGLER (1934), Ph.D.  
*Professor of Economics* 2240 Cranford Road
- †† HERRIHA D. E. SPONER (1935), Ph.D.  
*Professor of Physics* 3309 Avon Road, Hope Valley
- DALE FISHER STANSBURY (1946), J.S.D.  
*Professor of Law* 1008 West Trinity Avenue
- †† HELEN STARKE (1948), M.D.  
*Instructor in Medicine* Cole Mill Road
- EUGENE ANSON STEAD, JR. (1947), M.D.  
*Florence McAlister Professor of Medicine* 2122 Myrtle Drive
- FRANK H. STELLING (1952), M.D.  
*Lecturer in Orthopaedic Surgery* Shriners Hospital, Greenville, S. C.

\* Resigned, July 31, 1952.

† Resigned, August 31, 1952.

‡ Absent on leave from November 1, 1952 to May 1, 1953.

\*\* Resigned, September 1, 1952.

†† Absent on leave, 1952-53.

‡‡ Resigned, January 31, 1953.

- CHARLES RONALD STEPHEN (1950), M.D.C.M., D.A., R.C.P.&S.  
*Professor of Anesthesiology and Chief Anesthetist* 1509 Carolina Avenue
- DAVID B. STEVENS (1951), LL.B., Captain, U. S. Air Force  
*Instructor in Air Science* 2121 Sprunt Street
- HARRY R. STEVENS (1947), Ph.D.  
*Assistant Professor of History* University Apartments
- WILLIAM FRANKLIN STINESPRING (1936), Ph.D.  
*Professor of Old Testament* 1107 Watts Street
- FREDERICK WILLIAM STOCKER (1943), M.D.  
*Associate Professor of Ophthalmology* 1124 Forest Hills Boulevard
- CARL HENRY STOLTENBERG (1951), Ph.D.  
*Assistant Professor of Forest Economics* 879 Louise Circle, Poplar Apartments
- \*EDWARD STONE (1949), Ph.D.  
*Instructor in English* 1011 Lamond Avenue
- †FLOYD STOVALL (1953), Ph.D.  
*Professor of English* Chapel Hill, N. C.
- \*HARRIETTE STRIPLING (1950), Doctor de l'université  
*Visiting Instructor in Romance Languages* 1507 West Pettigrew Street
- HOWARD AUSTIN STROBEL (1948), Ph.D.  
*Assistant Professor of Chemistry* 2332 Huron Circle
- ‡WIPPERT ARNOT STUMPF (1948), Ph.D.  
*Associate Professor of Education* 127 Pinecrest Road
- CHARLES WOODROW STYRON (1946), M.D.  
*Associate in Medicine* 204 East Park Drive, Raleigh, N. C.
- HERBERT WILFRID SUGDEN (1929), Ph.D.  
*Assistant Professor of English* H3C University Apartments
- ROBERT BURKE SUITT (1940), M.D.  
*Assistant Professor of Psychiatry* 1311 Dollar Avenue
- \*\*ELIZABETH READ SUNDERLAND (1939-42; 1943), Ph.D.  
*Associate Professor of Art* Alastair Apartments
- \*GEORGE FRASER SUNDERLAND (1948), M.D.  
*Associate Professor of Psychiatry* Forest Hills Boulevard
- LOUIS EARL SWANSON (1949), A.B.  
*Assistant Professor of Hospital Administration, and  
Assistant Supervisor of the Hospital* 2610 Shenandoah Avenue
- ††BYRON R. SWITZER (1949), B.S., Colonel, U. S. Air Force  
*Professor of Air Science* 2402 Chapel Hill Road
- CHARLES SACKETT SYDNOR (1936), M.A. (Oxon.), Ph.D., Litt.D., LL.D.  
*James B. Duke Professor of History* 116 Pinecrest Road
- CHESTER R. TAYLOR (1951)  
*Associate in Experimental Surgery* 519 East Club Boulevard
- \*\*HARVEY GRANT TAYLOR (1940), M.D.  
*Associate Professor of Pediatrics and Bacteriology, and  
Assistant Dean of Medical School* Route 2, Hillsboro, N. C.
- HAYWOOD MAURICE TAYLOR (1930), Ph.D.  
*Associate Professor of Biochemistry, and Professor of Toxicology* 2620 University Drive

\* Resigned, August 31, 1952.

† Spring semester, 1952-53.

‡ Absent on leave, spring semester, 1951-52.

\* Absent on leave, 1952-53.

†† Resigned, July 1, 1952.

- \*JOSEPH MILLER THOMAS (1930), Ph.D.  
*Professor of Mathematics* 2215 Cranford Road
- WALTER LEE THOMAS, JR. (1932-35; 1937-42; 1945), M.D.  
*Associate Professor of Obstetrics and Gynecology* 3615 Dover Road, Hope Valley
- EDGAR TRISTRAM THOMPSON (1935), Ph.D.  
*Professor of Sociology* 138 Pinecrest Road
- †FREDERICK A. THOMPSON, JR. (1950), M.D.  
*Instructor in Medicine* 2510 Shenandoah Avenue
- †THOMAS G. THURSTON (1951), M.D.  
*Instructor in Radiology* Salisbury, N. C.
- BARNEY FOREMAN TIMMONS (1952), M.D.  
*Instructor in Otolaryngology* 905 Lambeth Circle, Poplar Apartments
- ELIAS TORRE (1951), M.A.  
*Assistant Professor of Romance Languages* 1121 Anderson Street
- EUGENE J. TOWBIN (1952), M.D.  
*Instructor in Medicine* Duke University
- MARTIN BICE TRAVIS, JR. (1949), Ph.D.  
*Assistant Professor of Political Science* 1405 Watts Street
- JAMES NARDIN TRUESDALE (1930), Ph.D.  
*Associate Professor of Greek* 2304 Erwin Road, Poplar Apartments
- MRS. VIOLET HORNER TURNER (1943), M.D.  
*Assistant Professor of Obstetrics and Gynecology* 2106 Cole Road
- LUELLA JANE UHRHANE (1947), R.N., M.P.H.  
*Assistant Professor of Health Education* 208 Faculty Apartments
- CHARLES ROWE VAIL (1939), M.S. (E.E.)  
*Associate Professor of Electrical Engineering* 900 Dacian Avenue
- F. JOHN VERNBERG (1951), Ph.D.  
*Instructor in Zoology* 932 Lambeth Circle, Poplar Apartments
- FRANCISCO A. VIAU (1952), M.D.  
*Instructor in Medicine* 2308 Pratt Street
- CLEMENT VOLLMER (1926), Ph.D.  
*Professor of German* 2114 Myrtle Drive
- HERBERT VON BECKERATH (1935), Ph.D.  
*Professor of Economics and Political Science* Eaton Road, Hope Valley
- WARREN CHASE VOSBURGH (1928), Ph.D.  
*Professor of Chemistry* 2319 Englewood Avenue
- †CARL M. VOYLES, JR. (1950), M.D.  
*Instructor in Medicine* 1112 Buchanan Boulevard
- ALBERT EDWARD WACKERMAN (1938), M.F.  
*Professor of Forest Utilization* 3610 Dover Road, Hope Valley
- JAMES ELIAS WALTER (1950), I.A.  
*Instructor in Economics* 214 Swift Avenue
- ARLEY JOHN WALTON (1948), B.S.L., D.D.  
*Associate Professor of Practical Theology, and Director of Field Work* 803 Second Street
- LORING BAKER WALTON (1929), Lic. ès L., Ph.D.  
*Professor of Romance Languages* 2235 Cranford Road
- DAVID M. K. WANG (1952), M.D.  
*Instructor in Medicine* Duke University

\* Absent on sabbatical leave, fall semester, 1952-53.

† Resigned, August 31, 1952.

- CALVIN LUCIAN WARD (1952), Ph.D.  
*Instructor in Zoology* 801 Third Street
- CHARLES EUGENE WARD (1927), Ph.D.  
*Professor of English* 2429 Perkins Road
- JAMES VAUGHN WARREN (1952), M.D.  
*Professor of Medicine, and Chief of  
Medical Service, Veterans Administration* University Apartments
- \*JOHN RUSH WARREN (1946), Ph.D.  
*Assistant Professor of Botany* 2002 Ruffin Street
- †WILLIAM THURMAN WATKINS, JR. (1950), M.D.  
*Instructor in Dermatology and Syphilology* 2509 Glendale Avenue
- GEORGE ARCHIBALD WATSON, JR. (1950), M.D.  
*Instructor in Pediatrics* 306 South Gregson Street
- RICHARD LYNNESS WATSON, JR. (1939), Ph.D.  
*Associate Professor of History* 109 Pinecrest Road
- VERNON ELGIN WAY (1930), A.M., M.A.  
*Assistant Professor of Greek* 918 Urban Avenue
- BAILEY DANIEL WEBB (1949), M.D., Ph.D.  
*Instructor in Pediatrics* 317 West Trinity Avenue
- KENNETH DURHAM WEEKS (1947), M.D.  
*Instructor in Medicine* 1605 West Thomas Street, Rocky Mount, N. C.
- HENRY WEITZ (1950), Ed.D.  
*Associate Professor of Education* 517½ South Duke Street
- PAUL WELSH (1948), Ph.D.  
*Assistant Professor of Philosophy* 102 Faculty Apartments
- JOSEPH CABLE WETHERBY (1947), M.A.  
*Assistant Professor of English* 2306 Prince Street
- LEWIS ELBERT WETHINGTON (1951), Ph.D.  
*Assistant Professor of Undergraduate Religion* 2614 Cascadilla Street
- GEORGE WILLARD WHARTON, JR. (1939), Ph.D.  
*Associate Professor of Zoology* 1202 Oval Drive
- ARTHUR REMINGTON WHITE, JR. (1951), B.S. in C.E.  
*Instructor in Civil Engineering* Box 4, Route 1
- ‡JOSEPH WARREN WHITE (1946), M.D.  
*Lecturer in Orthopaedic Surgery* Duke Hospital
- MRS. MARIE ANNE UPDIKE WHITE (1930), A.M.  
*Assistant Professor of English* 1208 Dwire Place
- MRS. EUGENIA REMELIN WHITRIDGE (1947), Ph.D.  
*Assistant Professor of Sociology* Box 6326, College Station
- RUTH JANET WIEN (1949), M.S.  
*Assistant Professor of Social Service* University Apartments
- \*KARL MILTON WILBUR (1946), Ph.D.  
*Professor of Zoology* 3409 Chapel Hill Road
- LESLIE CLIFFORD WILBUR (1949), B.S., M.S.  
*Instructor in Mechanical Engineering* 1208 East Geer Street
- RALPH SYDNEY WILBUR (1933), B.S. in M.E., M.E.  
*Professor of Mechanical Engineering* 1018 Deinerius Street

\* Absent on leave, 1952-53.

† Resigned, August 31, 1952.

‡ Resigned, February 1, 1952.



- PELHAM WILDER, JR. (1949), Ph.D.  
*Assistant Professor of Chemistry* 2525 Glendale Avenue
- WILLIAM EDGAR WILKINSON (1949), M.D.  
*Professor of Military Science and Tactics, and  
Associate in Psychiatry* 1204 Ruffin Street
- CLAIRE WILLIAMS (1951), B.S., M.A. in P.E.  
*Instructor in Physical Education* 211 Faculty Apartments
- D. MCGREGOR WILLIAMS (1947), B.S.  
*Lecturer in Preventive Medicine and Public Health* 1107 Alabama Avenue
- JAMES WESLEY WILLIAMS (1937), A.B., B.S. in C.E., M.S.  
*Assistant Professor of Civil Engineering* 206 Swift Avenue
- PHILIP WILLIAMS, JR. (1949), Ph.D.  
*Assistant Professor of English* 808 Louise Circle, Poplar Apartments
- \*H. STUART WILLIS (1951), M.D.  
*Visiting Lecturer in Medicine* McCain, N. C.
- EDWARD PIERCE WILSON, JR. (1951), B.S., Lieutenant, U. S. Navy  
*Assistant Professor of Naval Science* Randolph Road
- FLORENCE KISSICK WILSON (1946), R.N., M.A.  
*Professor of Nursing Education* Faculty Apartments
- FREDERICK ELIPHAZ WILSON (1923), A.M.  
*Associate Professor of German* 1020 Demerius Street
- JENNET WILSON (1952), R.N., B.S.  
*Instructor in Obstetrics* Hanes House
- ROBERT RENBERT WILSON (1925), Ph.D., LL.D.  
*Professor of Political Science* 717 Anderson Street
- WILLIAM PRESTON WILSON (1950), M.D.  
*Associate in Psychiatry* Hillandale Road
- THOMAS G. WINNER (1948), Ph.D.  
*Assistant Professor of Russian Language and Literature* 1813 Hillcrest Drive
- LOREN RALPH WITHERS (1949), M.S.  
*Assistant Professor of Music* 8 Duke University Apartments
- FREDERICK ADOLPHUS WOLF (1927), Ph.D.  
*James B. Duke Professor of Botany* 924 Urban Avenue
- JAMES HENRY WOOD (1952), M.A.  
*Assistant Professor of Music* 635 Cranford Avenue
- BARNES WOODHALL (1937-43; 1945), M.D.  
*Professor of Neurosurgery* 4006 Dover Road, Hope Valley
- †JAMES W. WOODS (1949), M.D.  
*Instructor in Medicine* 2409 Englewood Avenue
- ROBERT HILLIARD WOODY (1929), Ph.D.  
*Associate Professor of History* 2648 University Drive
- MRS. ELEANOR JANE HERRING WOOTEN (1950), M.D.  
*Instructor in Pediatrics* 817 Hillsboro Street, Raleigh, N. C.
- DEWITT WRIGHT (1943), J.D.  
*Associate in Hospital Administration, and  
Assistant Superintendent of the Hospital* Box 74, Route 1
- WARREN GRICE YATES (1949), A.M.  
*Instructor in German* 409 Carver Street
- ELISABETH STELLE YEARICK (1953), M.S.  
*Assistant Professor of Dietetic Instruction* 305 Erwin Apartments

\* Resigned, August 31, 1952.

† Resigned, May 15, 1952.

- DAVID A. YOUNG (1946), M.D.  
*Lecturer in Psychiatry* Raleigh, N. C.
- WILLIAM F. YOUNG (1952), LL.B.  
*Visiting Lecturer in Law* Apartment 1, 201 West Geer Street
- KARL EDWARD ZENER (1928), Ph.D.  
*Professor of Psychology* Route 2, Sparger Road
- HAROLD ZINK (1952), Ph.D.  
*Visiting Professor of Political Science* Duke University
- HALINA ZUKOWSKI (1950), R.N., B.S., M.L.  
*Assistant Professor of Psychiatric Nursing* Poplar Apartments

## PART-TIME INSTRUCTORS

- ELBERT V. BOWDEN (1952), M.A.  
*Economics* 708 Birch Avenue
- FRANK O. BOWMAN, JR. (1952), B.S.  
*Geology* University of N. C., Chapel Hill, N. C.
- WILLIAM WARD BROWN (1949), Ph.D.  
*Physics and Research Associate* Apartment 2, Markham and Fifth Streets
- EDWARD REAP BUCKNER (1950), A.B.  
*Geology* 322 West Rosemary St., Chapel Hill, N. C.
- OLEN KENNETH CAMPBELL (1952), M.A.  
*Education* Men's Graduate Center
- RUTH CAMPBELL (1952), M.A.  
*Romance Languages* 1105 North Gregson Street
- H. LAWRENCE CLEVER (1952), Ph.D.  
*Chemistry and Research Associate* 1515½ Cole Mill Road
- BOYD LEE DANIELS (1952), B.D.  
*Undergraduate Religion* 1018 Buchanan Boulevard
- GEORGE ARTHUR DELHOMME, JR. (1950), M.A.  
*Latin* 1503 Miami Boulevard
- MRS. ELIZABETH W. GRANT (1952), M.A.  
*Romance Languages* 904 Second Street
- HUGH MARSHALL HALL (1952), Ph.D.  
*Political Science and Research Associate* Apartment A4, 814 Green Street
- JOHN HERBERT HODGES (1952), B.S.  
*Mathematics* Box 1072, Men's Graduate Center
- JOHN MCDADE HOWELL (1952), M.A.  
*Political Science* 1601 Duke University Road
- WILLIAM R. KRIGBAUM (1952), Ph.D.  
*Chemistry and Research Associate* 863 Louise Circle, Poplar Apartments
- ROBERT L. LARKIN (1952), M.A.  
*English* Apartment E-18, Westover Park
- RALPH CLAUDE MOBLEY (1952), Ph.D.  
*Physics and Research Associate* 1309 Washington Street
- FRANCES MULDROW (1952), M.A.  
*Romance Languages* 1507 West Pettigrew Street
- LAWRENCE E. NOBLE (1952), A.M.  
*Political Science* 207 Men's Graduate Center
- JOHN BURRELL OLIVER (1951), A.M.  
*History* 207 Men's Graduate Center

WALTER H. PEARCE (1952), A.M. <i>Economics</i>	3335 Chapel Hill Road
THOMAS EUGENE RENTZ (1949; 1951), M.A. <i>Romance Languages</i>	2252 Cranford Road
ANGEL RUBIO (1952), A.B. <i>Romance Languages</i>	1023 West Trinity Avenue
MRS. TOBALEE ISAACS SCHATZBERG <i>Mathematics</i>	1004 Shepherd Street
CALVIN C. SMITH (1952), M.A. <i>English</i>	Men's Graduate Center
WILLIAM RODGER SMYTHIE, JR. (1950), A.M. <i>Mathematics</i>	1115 West Chapel Hill Street
EUGENE H. THOMPSON (1952), M.A. <i>Romance Languages</i>	1417 Watts Street
ROBERT MARSHALL WILLIAMSON (1951), Ph.D. <i>Physics and Research Associate</i>	Box 6, Route 2, Hillandale Road
DONALD P. WYLIE (1952), M.B.A., J.D. <i>Mathematics</i>	2602 Augusta Drive

### Other Officers

#### Legal Aid Clinic

SUMTER C. BRAWLEY, JR. (1946), LL.B.	2305 Club Boulevard
MRS. GRACE C. BODDIE (1951), LL.B.	1711 Shawnee Street
JAMES R. BROWNING (1952), LL.B.	Apartment Q-1, 818 Demerius Street
*WILLIAM T. CRIST (1951), LL.B.	931 Lambeth Circle, Poplar Apartments
ALTON J. KNIGHT (1938), LL.B.	Fish Dam Road
JACK C. WOODALL (1951), LL.B.	1405 Vickers Avenue

#### Physical Education, Trinity College

EDMUND MCCULLOUGH CAMERON (1926), A.B. <i>Director of Physical Education and Athletics, and Assistant Coach of Football</i>	2818 Chelsea Circle, Hope Valley
JAMES ROBERT BLY (1949), M.S. <i>Assistant Professor of Physical Education; Coach of Soccer; Director, Intramural Athletics</i>	University Apartments
HAROLD L. BRADLEY (1950), B.S. <i>Instructor in Physical Education; Coach of Basketball</i>	1903 Washington Street
HERSCHEL AMOS CALDWELL (1930) <i>Coach of Freshman Baseball, and Assistant Coach of Football</i>	3100 Devon Road, Hope Valley
ROBERT LEE CHAMBERS (1933), B.S. in Ed. <i>Coach of Varsity Track; Head Trainer</i>	2311 Prince Street
†JOHN WESLEY COOMBS (1929), M.A. <i>Instructor in Physical Education; Head Coach of Varsity Baseball</i>	West Campus
ROBERT CALVIN COX (1942), M.A. <i>Instructor in Physical Education; Assistant Coach of Football; Coach of Varsity Tennis</i>	1826 Guess Road
CARMEN M. FALCONE (1946), M.A. <i>Assistant Professor of Physical Education; Coach of Varsity Wrestling; Assistant in Football</i>	University Apartments
* Resigned, August 31, 1952.	
† Retired, August 31, 1952.	

- ELLIS P. HAGLER (1936)  
*Coach of Varsity Golf; Assistant Coach of Football* 220 Forest Wood Drive
- FRANCIS PARKS HARRISON (1947), M.A.  
*Assistant Professor of Physical Education; Assistant Coach of Wrestling* 2511 Pickett Road
- \*DONALD MELVIN HEDSTROM (1949), B.S.  
*Instructor in Physical Education; Coach of Gymnastics* University Apartments
- JOHN WILLIAM HENDRIX (1947), M.S.  
*Instructor in Physical Education; Coach of Varsity Tennis* 1019 Oakland Avenue
- DAN WINFIELD HILL (1945), A.B.  
*Assistant to the Athletic Director* 2527 Glendale Avenue
- †ALFRED M. JOHNS (1951), A.B.  
*Assistant Coach of Football* 801 Third Street
- HUBERT MURRY LEWIS (1937), B.S.  
*Business Manager of Athletics* Pickett Road
- ROBERT JOHN MONTFORT (1940), B.A.  
*Assistant Professor of Physical Education; Assistant Trainer* 3300 Cole Mill Road
- WILLIAM D. MURRAY (1951), A.B.  
*Head Coach of Football* 2106 Myrtle Drive
- THOMAS J. O'BOYLE (1951), B.E. in P.E.  
*Assistant Coach of Football* 107 Watts Street
- CLARENCE MCKAY PARKER (1947)  
*Assistant Coach of Football, and Coach of Baseball* Westover Park Apartments
- WALTER SCOTT PERSONS (1930), A.B.  
*Assistant Professor of Physical Education; Coach of Swimming; Coach of Lacrosse* 612 Swift Avenue
- MARTIN T. PIERSON (1951), M.C.E.  
*Assistant Coach of Football* Poplar Apartments
- RAYMOND STEPHEN SORENSEN (1952), M.S. in P.E.  
*Instructor in Physical Education; Coach of Gymnastics* 1211 Ruffin Street

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*Preacher to the University* 921 West Markham Avenue
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*Chaplain to the University and Director of Religious Life* 2517 Perkins Road
- ETHELENE SAMPLEY  
*Director of Student Religious Life, Woman's College* Faculty Apartments

\* Resigned, February 29, 1952.

† Resigned, November 30, 1951.

‡ Absent on sabbatical leave, fall semester, 1952-53.

ROLAND WILLIAM RAINWATER, B.D. <i>Director of Student Religious Life, West Campus</i>	Duke University Apartments
STUART CLARK HENRY, B.D. <i>Chaplain to Presbyterian Students</i>	West Campus
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LEAH BODDIE, A.M. <i>Counselor, Southgate Hall</i>	Southgate Hall
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KATHARINE HILL MIMS, A.M. <i>Counselor, Pegram House</i>	Pegram House

\* Absent on leave, 1952-53.

† Died, June 1, 1953.

‡ Resigned, August 31, 1952.



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MRS. HARRIET TAYLOR <i>Counselor, Giles House</i>	Giles House
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117 Faculty Apartments

\* Absent on leave, 1952-53.





# UNDERGRADUATE INSTRUCTION

TRINITY COLLEGE

THE WOMAN'S COLLEGE

THE COLLEGE OF ENGINEERING

# The Undergraduate Colleges



DUKE UNIVERSITY is built about a group of colleges which have their roots deep in the past. It was founded more than one hundred years ago when a number of earnest citizens from Randolph and adjacent counties assembled in a log school house to organize an educational society. They wished to provide lasting support for the local academy founded a few months before by an energetic son of North Carolina, Brantley York.

Moved by "no small share of philanthropy and patriotism," these men set forth their belief "that ignorance and error are the bane not only of religious but also of civil society" and that they "rear up almost an impregnable wall between man and the happiness he so ardently pants after." On that basis they formally adopted a constitution for the Union Institute Society. Thus in February, 1839, the academy became Union Institute. Twelve years later the Institute was reorganized as Trinity College. In 1892 it was moved from the fields of Randolph County to the growing city of Durham. Thirty-two years later the College grew into Duke University. With increasing enrollment and the development of specialized needs the Woman's College was formed in 1925 and the College of Engineering in 1938.

From academy to university the basic principles have remained constant. The University motto, *Eruditio et Religio*, reflects a fundamental faith in the union of knowledge and religion, the advancement of learning, the defense of scholarship, the love of freedom and truth, a spirit of tolerance, and a rendering of the greatest service to the individual, the state, the nation, and the church. Through changing generations of students the objective has been to encourage each individual to achieve to the extent of his capacities an understanding and appreciation of the world in which he lives, his relationship to it, his opportunities, and his responsibilities.

Duke University is concerned with developing the whole man. In its classrooms, libraries, and laboratories it is concerned with his mental and moral development, in its gymnasiums and on its playing fields, with his physical growth, and in its Chapel and religious program, with his spiritual well being. Although it has always been closely associated with the Methodist Church, Duke welcomes students of all faiths and encourages them to develop their spiritual lives in accordance with the tenets of their own creeds. The need of training for specialized professions and employments is recognized, but such training is incidental to a larger purpose. Through the variety of the

subject matter, the insistence on a common core of fundamental courses, and an emphasis on a more intensive study of some selected subject, the colleges seek to give their students a knowledge and appreciation of the culture of the Western World and at the same time to provide a foundation for careers in business and the professions.

The three colleges exist as parts of a university community in which the student has full opportunity to take part. They have a unique role in this community as the centers of individual education for undergraduates, but as members of the University the colleges share in the extensive facilities of laboratory and field work, superior physical equipment, great libraries, and able faculties which only a major university can provide. They share the same campuses with the Graduate School of Arts and Sciences, the Law School, the Medical and Nursing Schools, the Divinity School, the School of Forestry, and the Duke Hospital. A wide range of activities, religious, intellectual, cultural, social, and athletic, are open to the entire University community. At the same time there are other activities and organizations designed specifically for members of each undergraduate college. The student may thus enjoy both the activities and atmosphere of a small college and the broader facilities and challenges provided by the existence of a university community.

Although the three colleges have separate identities, they are closely inter-related. Students of Trinity College and the College of Engineering live in the same dormitories, belong to the same fraternities, hold membership in the same student government association, attend classes in the same buildings. The College of Engineering provides for the specialized interests of its students by offering training in technical fields. At the same time it recognizes the importance of the study of the humanities because it realizes that the engineer has definite responsibilities as a citizen and that these responsibilities cannot be properly stressed in the purely technical curricula. Engineering students, therefore, participate in the academic and extra-curricula life of the liberal arts college as well as in the training and campus activities peculiar to their own college.

As a coordinate college within the University system the Woman's College shares the advantages of the wider community, and yet it offers to its students the special opportunities which belong to a separate woman's college. Women students receive training in leadership by administering their own organizations and by participating in community projects. At the same time they have the stimulus which comes from co-educational classes and from the experience of working with men of other colleges in campus activities.

Whether in the classroom or on the campus the emphasis is on the individual. To this end, classes are kept small in size and close

contact between professor and student is encouraged. Instructors, counsellors, advisers, and administrative officers are interested in the student as a person. In turn the student is expected to accept the responsibility of contributing to his own development, to his college, and to his university. The relationship of mutual service between the individual student and his college is designed to develop men of intelligence, virtue, and culture. From this relationship there has grown through a century and more a sense of achievement and high competence that enables Duke men and women to make their place in the world as effective citizens whatever their careers may be.

# Admission to the Colleges



**A**PPPLICANTS may qualify for admission as members of the freshman class or as students with advanced standing. Since the enrollment is limited, the Committee on Admissions selects students who, in its judgment, are best qualified to benefit from the educational advantages which the colleges offer. The Committee bases its decision on the academic record of the applicant, on test scores, and on satisfactory evidence of good character and general fitness for college life at Duke. A personal interview with an officer of the University or a designated alumnus or alumna is of material benefit to the Committee and the applicant.

**ADMISSION TO THE FRESHMAN CLASS:** An applicant for admission to the freshman class must present at least fifteen acceptable units of secondary-school credit. A unit of credit is allowed for a course of study pursued throughout an academic year in an accredited secondary school, provided five recitations a week have been held and the prescribed amount of work has been completed satisfactorily.

*For admission to Trinity College and the Woman's College* twelve of the fifteen units must be in English, foreign language, history,\* and social studies, mathematics, and natural science. They must include three units in English, one unit in algebra, and one unit in plane geometry. The three remaining units may be in the five subjects listed above or they may be selected from the following table. The numeral indicates the maximum amount of unit credit acceptable in each subject:

Agriculture .....	2	Mechanical Drawing .....	2
Art .....	1	Music .....	1
Commercial Subjects .....	3	Physical Geography .....	1
Household Economics .....	2	Woodworking, Machine Work .....	2

Credit for units offered in subjects not included in this list will be considered on the basis of full statements transmitted with the applicant's record from the school recommending him.

*For admission to the College of Engineering* seven of the fifteen units must be in English (3 units), physical science (1 unit), algebra ( $1\frac{1}{2}$  units), plane geometry (1 unit), and solid geometry† ( $1\frac{1}{2}$  unit). The remaining eight units are elective. At least five of them must

\* Applicants who do not present two acceptable units of history must take history in college.

† Any deficiency in this requirement must be made up before the beginning of the sophomore year.



be in English, foreign language, history and social studies, mathematics, and natural or physical science. It is recommended that these five be chosen from the following list:

English (in addition to the required 3 units) .....	1 unit
Algebra (in addition to the required $1\frac{1}{2}$ units) .....	$\frac{1}{2}$ unit
Trigonometry .....	$\frac{1}{2}$ unit
Physics or chemistry or biology (in addition to the required unit) ...	1 to 3 units
Foreign languages .....	1 to 4 units
*History and social studies.....	1 to 3 units

The three additional units needed to make the total of fifteen may be chosen from the subjects listed above or they may be selected at large from the following table, which gives the subjects acceptable for entrance credit and the maximum credit acceptable in each subject:

English .....	4	Zoology .....	1
Latin .....	4	General Biology .....	1
Greek .....	3	Physical Geography .....	1
German .....	3	General Science .....	1
French .....	3	Agriculture .....	2
Spanish .....	3	Mechanical Drawing .....	2
Mathematics .....	4	Shop Work .....	2
History and Civics .....	4	Art .....	1
Physics .....	1	Music .....	1
Chemistry .....	1	Commercial Subjects .....	3
Botany .....	1		

**ADMISSION TO ADVANCED STANDING:** An applicant for advanced standing must have fulfilled the equivalent of the requirements for admission to the freshman class, must present official certificates of all work completed in other institutions, and must have an honorable dismissal from each institution previously attended. Credit for work completed will be determined in relation to the curriculum requirements of the college in which the transfer enrolls at Duke University.

A student who transfers with advanced standing to Trinity College or the Woman's College from a junior college or from a four-year college not affiliated with the Southern or a similar regional association must continue, for at least one semester in Trinity College or in the Woman's College, the foreign language he presents for minimum graduation requirements. Credit for courses in science offered for advanced standing by a transfer from a junior college or a non-affiliated four-year college will be determined by the departments concerned.

Applicants for advanced standing in the College of Engineering should present, as far as possible, subjects corresponding to those required by the college. They may not, during their first semester, register for more than the minimum number of hours required of the class which they enter, except by permission of the Dean of the College of Engineering.

\* Applicants who do not present at least one acceptable unit of history must take history in college.

Transfer credits are tentatively evaluated pending the completion of two semesters of work in residence. To validate provisional credits the student must earn at least an average of C in a normal load of work. Transfer grades of C or above are rated at one quality point per credit hour when validated. Credits with grades of D are not acceptable.

The maximum amount of credit acceptable from a junior college is 60 semester hours, exclusive of physical education. No credit is given for work completed by correspondence, and credit for no more than six semester hours is allowed for extension courses. Any extension work accepted must be specifically approved by the dean of the college to which the student seeks admission.

**ADMISSION OF SPECIAL STUDENTS:** Upon the approval of the dean, students of mature age may be admitted for special work in such courses of instruction as they are qualified to take. They may not be admitted as candidates for a degree in a regular course unless they meet all normal requirements for admission.

**ADMISSION PROCEDURE:** Application for admission to Trinity College and the College of Engineering should be made to the Director of Admissions, Trinity College and the College of Engineering, Duke Station, Durham, North Carolina. Application for admission to the Woman's College should be made to the Director of Admissions, Woman's College, College Station, Durham, North Carolina. Application forms and instructions will be sent to the applicant.

Application prior to the final year of the secondary-school course is not required. Formal steps looking toward admission should be initiated, however, early in the senior year. Applicants for admission are requested to file all credentials by March 1. Candidates for admission to the Woman's College normally will receive notification of the decision of the Committee on Admissions on April 15. Candidates for admission to Trinity College and the College of Engineering will be notified as decisions are made.

A graduate of an accredited school who submits fifteen acceptable units of secondary-school subjects, who is recommended by his principal, and who otherwise meets the requirements of the Committee on Admissions may be admitted without examination. An applicant who presents fifteen acceptable units for admission from a non-accredited school is required to validate these units by entrance examinations and such other tests as the college may prescribe.

**READMISSION OF FORMER STUDENTS:** A student who, following withdrawal from college, desires to return should apply to the appropriate director of admissions. When applying for readmission the student should make a detailed statement of his or her activities since leaving Duke University.

# Financial Information and Living Accommodations



**F**EES paid by the students cover only a part of the cost of their instruction and of the operations of the University. Income from endowment and contributions from the alumni, alumnae, and other public-spirited men and women meet the balance, which constitutes more than half the total cost.

## *Fees*

A registration fee of \$20.00 is required of all new students. This fee is payable only once; it is not refundable. A room deposit of \$25.00 is also required of all new students. A tuition fee of \$175.00 and a general fee of \$75.00 are payable at the beginning of each semester. The general fee is in lieu of special fees usually charged for matriculation, use of laboratories, student health service, commencement, etc. Special fees for instruction in Applied Music are listed elsewhere in this Bulletin.

Due to rising costs a readjustment in charges, including room-rents, is being considered. In the event of an adjustment applicants will be notified.

An advance deposit of \$25.00 is required of all students in residence at the time of spring registration in order to reserve a place in classes for the fall semester. This is applied toward payment of the general fee at the opening of the fall semester. The deposit will be refunded to students whom the University does not permit to return. Students who of their own volition fail to return are not entitled to a refund.

An advance deposit of \$25.00 is also required of old students who have been out of school for one or more semesters and have been accepted for readmission. It is applied toward payment of the general fee for the semester of readmission. The advance deposit is paid at the time of notification of acceptance and is not refundable.

An Air Force ROTC deposit of \$20.00 is required of students enrolling in Air Science to cover possible loss of military equipment issued to them. This deposit is refunded to the student upon return of issued equipment.

Refunds of tuition and other fees are made to students who withdraw within 14 days after the beginning of the semester. On and

after the fifteenth day all fees are considered as earned and no refunds are made.

Students who register during the regular academic year for no more than two courses with a maximum credit of 8 semester hours are classified as special students. They are charged a registration fee of \$5.00 for each course, and \$12.00 for each semester hour of course credit. Students taking nine or more hours are charged full fees.

Auditors are permitted to attend classes provided they secure the consent of the instructor. They submit no daily work, take no examinations, and receive no credit. Students taking a full program and paying full fees may audit one or more courses without charge. Students not paying full fees are charged \$10.00 for each course each semester.

Students are entitled to one transcript free of charge. Additional copies are supplied at \$1.00 each. Records are not released when the Treasurer's Office reports an unpaid account.

Students may have their bills sent to parents or guardians provided the Treasurer has been notified in writing with sufficient antecedence. Failure of a student or of a parent or guardian to pay bills on the dates scheduled will debar the student from class attendance until his account is settled in full; subsequent withdrawal does not entitle him to a refund. No student is considered by the Faculty as a candidate for graduation until he has settled with the Treasurer for all his indebtedness to the University. A student who has not settled all his bills with the Treasurer is not allowed to stand the final examinations of the academic year.

### *Estimated Expenses for an Academic Year*

Incidental expenses depend upon the tastes and habits of the individual, but the actual necessary expenses for an academic year are as follows:

	<i>Low</i>	<i>Moderate</i>	<i>Liberal</i>
Tuition .....	\$ 350.00	\$ 350.00	\$ 350.00
General Fee .....	150.00	150.00	150.00
Room Rent .....	100.00	125.00	175.00
Board .....	375.00	450.00	500.00
Laundry .....	25.00	30.00	35.00
Books .....	30.00	40.00	50.00
	<hr/> \$1,030.00	<hr/> \$1,145.00	<hr/> \$1,260.00

The actual fees and expenses necessary for one year in residence as a student in Trinity College or the College of Engineering can be met with \$1,030.00.

## *Student Aid*

Duke University is interested in students with ability and ambition. It is the aim of the University Scholarship Committee and others affiliated with the Student Aid Program to provide, insofar as possible, the financial assistance required by worthy students. This assistance takes various forms. The actual cost to the University for each student is more than twice the amount received from the student. The deficit is paid out of contributions and income from endowment. Scholarships and prizes enable students with inadequate resources to reduce the amount payable to the University. Loans are made available, and through the Student Employment Offices part-time jobs are arranged. Through the Student Aid Program an earnest effort is made to eliminate the economic status of the student as a criterion for admission.

## *Scholarships*

Scholarships intended to aid needy and deserving students have been established from time to time by persons deeply interested both in Duke University and in the members of its student body. Scholarship endowments are held in trust and are kept separate from other holdings of the University. All income is applied in accordance with the terms of the gift or bequest.

Scholarships are awarded annually by a committee of the Faculty appointed by the President of the University. In some cases donors have specified certain limitations and conditions, but in all cases final award is made by the University Scholarship Committee.

Any prospective student may apply for a scholarship. Applications, however, may be made formally by a prospective student only after his application for admission has been made, all necessary credentials have been presented, and notification of acceptance has been given. Applications are made by letter; they must include, on a form furnished by the University, a complete statement of the applicant's needs. Since the number of scholarships available is small in comparison with the number of applicants, the committee is forced to limit scholarship aid to cases where the need is imperative.

All applications for scholarship aid should be made to the Executive Secretary, the Scholarship Committee, Office of the Secretary, Duke University, Durham, N. C.

The scholarship funds available to undergraduates are listed in the *Bulletin of Undergraduate Instruction*. Awards, made annually, are based on the scholastic standing, the character, and the need of the applicants. Other factors of interest to the Scholarship Committee are extra-curricular activities, church activities, and general promise of achievement.



### *Scholastic Awards and Prizes*

Need is a primary factor in awards made from the funds listed above. There are, in addition, scholarships and prizes based on scholastic merit and promise of leadership. In this group are the honorary scholarships financed through current funds of the University, the Angier Duke Regional Prizes, and the Duke University Regional Scholarships.

Fifteen honorary tuition scholarships are awarded annually to undergraduates. Five are awarded to members of the sophomore class, five to members of the junior class, and five to members of the senior class on the basis of the scholastic work of the preceding year.

Nine Angier Duke Regional Prizes of \$750.00 each are awarded annually to six men and three women and three Duke University Regional Scholarships of \$750.00 each are awarded annually to two men and one woman. These prizes and scholarships are awarded for one year and are renewable from year to year for a maximum duration of four years, on the condition that the holder maintain a scholastic average in the upper quartile of his class and further that he show evidence of developing the qualities of leadership which served as the basis for the original selection. The total value to the recipient who qualifies for the maximum period is \$3,000.00. Conditions of eligibility and award are stated in the *Bulletin of Undergraduate Instruction*.

One Duke University Regional Scholarship of \$350.00 for the recipient's first academic year is awarded annually by the Rochester, New York, Chapter of the Duke University Alumni Association. Any male resident of the County of Monroe, State of New York, will be eligible to apply regardless of where he prepares for college. A candidate may be a graduate of a secondary school, public or private, located within or beyond the borders of Monroe County. Candidates must be eligible for admissions to the freshman class of Trinity College or the College of Engineering in the ensuing academic year and must have attained scholastic standing in the highest twenty-five per cent of his class as of the closing date of his most recently completed semester.

Applications for one of the regional prizes or scholarships awarded either to men or women should be addressed to Mr. John M. Dozier, Office of the Secretary, Duke University, Durham, N. C. The deadline for the receipt of applications for an Angier Duke Regional Prize is December 15 of the year preceding the year of contemplated entrance. The deadline for the receipt of applications for a Duke University Regional Scholarship is February 15 of the year of contemplated entrance.

## *Loans*

A number of loan funds have been established for the benefit of the students of Duke University. The most important and largest is the Angier B. Duke Memorial Student Loan Fund, which is administered through an advisory committee of officers of the University. The amount available to be loaned depends upon the income from investments and on the amount repaid on loans previously made to students. The same committee of officers administers the other endowed loan funds of the University.

The committee in approving loans selects those students who, from the standpoint of character, scholastic attainment, personality, and degree of financial need, are deserving of consideration.

The following regulations govern the operation of the loan fund program:

1. No loan will be made to a student who violates any of the regulations of the University or whose academic record is not satisfactory to the faculty.

2. As a general policy, a student must have spent one semester in residence before he is eligible to apply for a loan. During this period the loan committee will have an opportunity to acquaint itself with the worth and need of the individual applicants.

3. Loans will be made only to students who are taking approved courses of study that lead to a degree, and all loans must be arranged for not later than one week after the beginning of a semester.

4. Every applicant for a loan must obtain the signatures of two substantial people on a note which must be presented to the Treasurer of the University before any money will be advanced. Only one of these co-signers may be a member of a borrower's family.

5. No loan will be made to defray any expenses other than those incurred for tuition, fees, or room rent.

6. Interest shall be charged for all loans, and the interest must be paid annually.

The University encourages borrowers to take advantage of its incentive plan. This plan enables them to realize a substantial saving through rebates which are given for repayment of long term loans prior to their maturity date.

7. Applications for loans should be made to the Loan Committee, Office of the Secretary, Duke University. A formal application for loan assistance may be made only on forms furnished in the Secretary's Office during the first week of each semester. The granting or withholding of a loan is a matter entirely within the discretion of the loan committee. A student is expected to use all other possible means of securing financial assistance before applying for aid from the Loan Fund.

The loan funds available to undergraduates are listed in the *Bulletin of Undergraduate Instruction*.

### *Student Employment*

Student employment offices are maintained to serve students who need part-time jobs. There are many opportunities both on the campus and in the city of Durham, and a considerable number of students each year help defray their college expenses by working.

Students may make application for part-time employment only after they have completed an application for admission and notification of acceptance has been given. The job application should be by letter prior to the reporting date for entrance, and a detailed job application form must be completed at the time of arrival at Duke University.

Those students in Trinity College and the College of Engineering in need of such employment may apply to Mr. J. M. Dozier, 205 Administration Building, West Campus. Students in the Woman's College should apply to the Assistant Dean of Undergraduate Women, 108 East Duke Building, East Campus.

### *Living Accommodations for Men*

Craven, Crowell, Few and Kilgo Quadrangles on the West Campus are reserved for undergraduate men. Kilgo Quadrangle is reserved for freshmen. The Quadrangles contain 33 divisions known as Houses, each House being designated by a letter of the alphabet, including House A through House HH. The rooms are equipped as single rooms and as double rooms. In some areas communicating doors between rooms permit the use of rooms as suites for 3 or 4 persons. The rental charge for a single room is \$87.50 each semester. The rental charge for a double room is \$125.00 each semester, or \$62.50 for each occupant each semester.

Undergraduate men are required to live in the residence houses unless they are married, or are living with parents or close relatives. Any exceptions must be approved by the Dean of Men.

Rooms may be reserved by new applicants only if they have been officially accepted for admission by the University and if they have paid a room deposit of \$25.00. The room deposit is refundable, providing application for refund is made sixty days prior to the registration date of the semester for which the room was reserved or within thirty days after official withdrawal from the University Residence Hall.

A resident student, in order to retain his room for the succeeding semester, must make application at the office of the Housing Bureau for confirmation of the reservation. In order to secure a refund of his initial room deposit, he must cancel his room reservation sixty days

prior to the registration date of the semester for which the room was reserved. All rooms which have not been reserved on or before an announced date will be considered vacant for the succeeding semester and will be reserved in the order in which applications are made.

Rooms are rented for no shorter period than one semester or, in the case of a medical student, one quarter, unless by special arrangement with the Housing Bureau. A period of occupancy other than a semester or quarter without special arrangement will be charged at a rate of one dollar each day of occupancy with a minimum charge of \$25.00.

The exchange of rooms may be arranged at the Housing Bureau within fifteen days after the official opening of the semester or quarter of the school term. Thereafter a charge of \$2.00 may be made. Persons exchanging rooms without the approval of the Housing Bureau will be subject to charges for both rooms.

The authorities of the University do not assume responsibility for the persons selected as roommates. Each student is urged to select the roommate when the room is reserved.

Beds and mattresses (39" x 74"), tables, chairs, dressers, mirrors, and window shades are furnished by the University. The student supplies linens, blankets and pillows. Rugs, if desired, are not to exceed 50 square feet in size.

Duke University desires to provide for its students a residential environment conducive to academic achievement, the development of high ideals, and sound character. The institution asks and believes that each student will contribute to this end by arranging his personal belongings in an orderly manner, by caring for the buildings and furniture as he would do in his own home, and by observing a code based on gentlemanly behavior in an educational environment which demands respect for all residents. Regulations governing the occupancy of rooms will be supplied directly from the Housing Bureau when the room reservations are made. Occupants are expected to abide by these regulations.

### *Living Accommodations for Women*

Undergraduate women are required to live in the residence houses of the Woman's College unless they are living with parents or close relatives in the city. In the case of a mature student the dean may, under special circumstances, make an exception. There are eight residence houses: Alspaugh, Aycock, Bassett, Brown, Giles, Jarvis, Pegram, and Southgate. All rooms in Jarvis and Southgate are double; in the other houses a few single rooms are available and, with the exception of Aycock, a limited number of suites consisting of a double room and one or two single rooms. A counselor, who is a member of



the dean's staff, lives in each dormitory. It is her function to advise students and to assist the student House Council in the administration of the house. Each occupant of a double room is charged \$75.00 per semester; the occupant of a single room, \$100.00 per semester.

Room reservations are made with the Woman's College Housing Bureau. An applicant who has been officially accepted may reserve a dormitory room by paying a room reservation fee of \$25.00. If this deposit is not paid within ten days after she is notified of her acceptance, her admission is cancelled. The initial room reservation fee is effective for the entire college career of the student whose attendance during regular terms is continuous. It will be refunded within 30 days after her graduation. Upon the withdrawal of an accepted applicant or of an enrolled student prior to graduation the room deposit fee is refundable provided the Housing Bureau is notified at least sixty days prior to the beginning of the semester for which the room was reserved. Dormitory rooms are reserved by upperclass students in accordance with the plan that is published during the school year. All rooms which have not been reserved on or before the announced date will be considered vacant for the succeeding semester and will be assigned to others.

Rooms are rented for no shorter period than one semester, unless by special arrangement with the Dean of Undergraduate Women. A period of occupancy other than a semester or a quarter without special arrangement will be charged at the rate of \$1.00 each day with a minimum charge of \$25.00.

After a student has engaged a room, she is not permitted to move to another without the consent of the Woman's College Housing Bureau. A student leaving one room and occupying another without permission may be charged for both rooms for the entire semester. No student is allowed to rent or sublet the room she has engaged to another occupant.

A new student who wishes a double room but has made no arrangement for a roommate will be assigned a roommate by the Woman's College Housing Bureau. After a student has been a resident for one semester, she is responsible for obtaining and keeping a roommate. If a student occupying a double room does not obtain a roommate in the time required—approximately two weeks after the beginning of the semester—she may be required to pay the rental consideration for the entire room.

Rooms contain only the principal articles of furniture. The student supplies her own linens, blankets, bedspreads, curtains, and study lamp. She may, if she wishes, provide additional articles such as scatter-rugs and small tables or bookcases, but she may not have large rugs or overstuffed furniture.



## *Dining Service*

The dining facilities on the West Campus include three cafeterias with multiple-choice menus, and the Oak Room where full meals and *a la carte* items are served. The cost for the academic year ranges from \$375.00 to \$500.00, depending on the tastes of the individual. On the East Campus dining halls are located in the Union and in Southgate. Resident women may not board elsewhere than at these halls. The charge for board is \$200.00 per semester, payable at the time of registration.

In the Men's Graduate Center there is a cafeteria with multiple choice menus and a Coffee Lounge where sodas and sandwiches are served from 11:30 A.M. to 11:00 P.M. The prices in these dining rooms are the same as on the West Campus.

It is hoped that present rates may be maintained. Charges, however, are necessarily dependent on costs of labor, foods, and materials, and some adjustment may be necessary.

Due to the large number of those served in the dining halls, it is not possible to arrange special diets for individual students. Special diet for the sick is served in the infirmary.

## The Libraries



THE UNIVERSITY LIBRARIES, with more than 1,085,000 volumes and 1,500,000 manuscripts, provide exceptional resources and facilities for study and research by undergraduate and graduate students, and by visiting scholars. Between 40,000 and 50,000 volumes are added annually, and 69 foreign and domestic newspapers and 3,950 periodicals are received currently. A large collection of microfilms of rare books, newspapers, and periodicals is available.

A Chemistry library (16,000 volumes), Physics-Mathematics library (15,500), and Biology-Forestry library (48,000) are housed for convenience of use in the buildings of these departments. The libraries of the Schools of Divinity (58,000), Law (98,000), Medicine (53,000) and of the College of Engineering (18,500) are also shelved in the buildings of these schools, all on the West Campus.

The General Library, centrally located on the West Campus, has 685,000 volumes in all other fields. It is the principal working and research collection for students in the humanities and social sciences. The collection has been developed with care to support the work of

the undergraduate curriculum and the more specialized needs of graduate and post-doctoral research. Basic collections of source materials are supported by the important publications of criticism and discussion. There are large collections of general periodicals, of the publications of European Academies, and of public documents of state, federal, and foreign governments, and international organizations. The newspaper collection (about 13,000 volumes and 3,200 rolls of microfilm) is particularly strong in papers from the states of the Atlantic seaboard, both North and South, with extensive holdings of Ante-bellum and Civil War papers of North Carolina, South Carolina, and Virginia.

The manuscript collections, relating chiefly to the South Atlantic region with particular strength in the Confederate period, is most extensive in the field of history, but it contains important source material on all phases of social and economic life as well as politics. There are groups of manuscripts in American and British literature, with a notable Walt Whitman collection, and a number of important mediæval manuscripts, chiefly lectionaries and copies of the New Testament. Among many special collections of note are the Guido Mazzoni library of Italian and comparative literature, the Lanson Collection of French literature, Goethe and Dante collections, collections on Brazil, Peru, Ecuador, and the Philippines, the Holl Church history library, eighteenth-century English poetry and prose, a Socialist collection, the Arents tobacco collection, the Thomas collection of books on Chinese history and culture, the George Washington Flowers Collection of manuscripts, books, newspapers, and pamphlets dealing with all phases of Southern history, and the Trent collection of Walt Whitman books and manuscripts.

The General Library building, which was modernized and enlarged in 1949, contains many special features which contribute to the preservation of materials and facilitate their use by students and research workers. The book stacks, manuscripts, and rare book storage and reading rooms are air-conditioned. Two hundred and fifty carrels, some completely enclosed, are available in the stacks as places of study for graduate students. Graduate and advanced students are permitted access to the stacks upon application. On the ground floor are a newspaper reading room with a battery of microfilm reading machines and a microphotography laboratory with facilities for reproducing printed and other material. On the same floor are the manuscripts reading room and storage area. The first floor has periodical, graduate, and undergraduate reading rooms, the latter opening into an attractively furnished small library for recreational reading. In the north wing is the rare book reading room, with adjoining special collections rooms and storage stacks. The second floor houses the

general reference and reading room, the circulation department and Main Loan Desk, and the Public Card Catalog, a union catalog of books in all the University libraries. There is also a catalog of the library of the University of North Carolina at Chapel Hill, whose books are available through inter-library loan.

On the East Campus, the Woman's College Library, in its attractive Georgian building, contains more than 93,000 volumes in an open stack collection, chiefly those most constantly needed in the undergraduate work of women students. A reference and general reading room, the Thomas Memorial Room, and the Booklovers' Room, with open shelves of books for general reading, provide comfortable and attractive space for reading and study.

A "Student's Guide to the General Library" is available on request addressed to the Librarian of the University.

## Reserve Officers Training Corps



THROUGH the Naval and Air Force Reserve Officers Training program the University is cooperating with the Department of National Defense in the effort to provide a steady supply of well-educated officers for the active and reserve forces of the Nation. A description of the two programs is given in the *Bulletin of Undergraduate Instruction*.

## The Bureau of Testing and Guidance



The University maintains a Bureau of Testing and Guidance which provides a centralized program of educational, vocational, and personal counseling for students. In addition, the Bureau administers special group testing programs for University schools and departments and serves as the local testing center for a wide variety of national testing programs. The Bureau also carries on programs of research in the field of measurement and counseling. Although the counseling, testing, and research services of the Bureau are designed primarily to meet the needs of the students, the faculty, and the staff of Duke University, these services are made available to individuals and organizations outside the University as its facilities permit. Requests for further information should be addressed to the Director, Bureau of Testing and Guidance, Duke Station, Durham, N. C.

# Appointments Office



THE APPOINTMENTS OFFICE is a service agency designed to aid graduates in solving the problem of post-college employment. Its primary function is to serve as an intermediary between students and prospective employers. It acquaints students with possibilities in business and professional fields; it assembles comprehensive records on each registrant and makes these records available to appropriate representatives; and it arranges interviews with prospective employers. The data assembled for individual records include academic achievement, training, experience, extracurricular activities, and honors. On occasion additional information of a specialized nature is secured. Confidential letters of recommendation are incorporated in the file of each registrant. The Office initiates contacts for students or cooperates with students who make contacts through personal efforts or through various departments of the University. It aids the registrant in directing his search to a field appropriate to his aptitude, training, and interest.

There are two major divisions of the Office: the Commercial Division, which handles all matters involving contacts with business and professional areas not related to formal education; and the Educational Division, which concerns itself with teaching and school administration positions at all levels. Students and alumni may register with either or both of these divisions.

The Office receives more calls for qualified personnel than it can supply from its registrants. It is to the mutual advantage of the students and the Office that a complete record of registrants be assembled by the fall of the senior year.

# The Summer Session



THE SUMMER SESSION at Duke University makes available to Duke undergraduate students and to undergraduates from other universities and colleges a notable program of instruction in many fields of knowledge both academic and professional.

Undergraduates in Duke University who desire to accelerate their programs may complete the work for a degree in three years by attending two and one-half summer sessions.

Undergraduates from other colleges and universities may enjoy the special advantages of summer instruction at Duke and transfer their earned credits to their own institutions.

The Summer Session of 1953, will include two six-week terms: Term I, June 10 to July 18; Term II, July 21 to August 28. By attending both terms it is possible for a student to earn as many as twelve semester hours of credit.

Instruction of interest to undergraduates will be offered in the summer of 1953 in the following departments and colleges: Aesthetics, Art, and Music; Botany; Chemistry; Economics; Education; Nursing Education; English; Forestry; French; Geology; German; Greek; Health and Physical Education; History; Latin and Roman Studies; Mathematics; Philosophy; Physics; Political Science; Psychology; Religion; Sociology; Spanish; and Zoology.

Distinctive features of Summer Session instruction are provided by the program in marine biology offered at the Duke Marine Laboratory, Beaufort, N. C., and by the School of Spanish Studies held on West Campus. The School of Spanish Studies (1953 will be its twelfth session) offers unusual opportunities to students both undergraduate and graduate who seek proficiency in the active use of the language. Students and faculty live and board in the Residence and share in a Hispanic social program. Among the faculty are native professors and native student assistants. Everyone speaks Spanish. Courses are offered concurrently on the undergraduate and the senior-graduate level so that the student while acquiring oral facility in everyday living may also satisfy course requirements toward a degree.

While the basic purpose of the Summer Session is to serve the academic and the professional requirements of those who are interested in their own educational advancement, the University recognizes the need of, and provides for, a varied recreation program both athletic and social.

Undergraduates of Duke University both men and women who plan to attend the Summer Session should enroll with the Dean of their own college in Duke University. Undergraduates in other universities or colleges who seek transfer credits should apply directly to the Director of the Summer Session, Duke University, Durham, N. C.



# Registration and Academic Regulations



**O**RIENTATION PROGRAM: All freshmen and transfer students are required to participate in the activities of Orientation Week. The program includes general ability, achievement, and placement tests, orientation lectures, physical examinations, social events, special religious services, registration, and enrollment.

The University considers the planning of a course of study to be of primary importance. A specially trained corps of advisers, therefore, is made available for consultation. The tests enable the counsellor to plan a program adapted to the ability, achievements, and goals of the individual student. New students who miss the whole or a part of the Orientation Program place themselves at a serious disadvantage at the very outset of their college career.

**MATRICULATION AND REGISTRATION:** Students in residence are required to submit to the appropriate dean, not later than the date of the spring registration, cards showing their selection of courses for the following year. An advance deposit of \$25.00 is required before the card may be submitted. These cards, approved by the dean, are filed for permanent record in the dean's office. Students who do not select their courses for the following year at the time appointed must pay a fee of \$5.00 to the Treasurer of the University before their course cards may be approved for the fall. Students whose course cards have been approved in the spring may matriculate by mail during the summer. The same regulations, with the exception of the advance deposit, apply to registration for the spring semester.

Students who register in either semester at a date later than that prescribed in the calendar of this Bulletin must pay to the Treasurer a fee of \$5.00. They are counted as absent in the work they have missed in the courses to which they are admitted, and these absences carry the same penalty as do other absences from the course. Changes in courses for reasons not arising within the University require a payment of \$1.00 for each change made. No course may be elected later than two weeks after the opening of the semester, and no student may be admitted to any class without an enrollment card.

## *General Academic Regulations*

**QUANTITY CREDIT AND COURSE LOAD:** The term of credit used is the semester hour which signifies one recitation a week throughout the semester. Two or three hours of laboratory work are equivalent to one hour of class work. Two semesters of seventeen weeks each constitute the academic year. For the degree of Bachelor of Arts or Bachelor of Science, credit for 124 semester hours is required; for a degree in Engineering, 148 semester hours.

The normal load of an undergraduate student in the Colleges of Arts and Sciences is five academic courses totaling 14 to 17 semester hours. The maximum number permitted is 19 semester hours, exclusive of physical education. In the College of Engineering the normal load is six academic subjects of 18 semester hours, exclusive of physical education. No student is permitted to take less than 14 semester hours of work without special permission from the dean nor to take more than the normal load of work unless his average grade in the preceding semester is higher than C.

**QUALITY CREDIT:** The requirements for the degree are computed not only in semester hours but also in quality points. Quality points are earned by a student on the basis of his grades: for an A he receives three quality points for each semester hour; for a B, two quality points for each semester hour; for a C, one quality point for each semester hour; for a D, no quality points; for an F, a loss of one quality point for each semester hour. (In the College of Engineering no loss is incurred by a grade of F.) Credit for at least 124 quality points is required for the degree of Bachelor of Arts or Bachelor of Science, and at least 148 quality points for a degree in Engineering.

**CLASS STANDING:** In the Colleges of Arts and Sciences a student to rank as a sophomore must have to his credit at least 26 semester hours and 26 quality points; as a junior, at least 56 semester hours and 56 quality points; and as a senior, at least 92 semester hours and 92 quality points. In the College of Engineering he must have, respectively, at least 30 semester hours and 30 quality points; 68 semester hours and 68 quality points; and 106 semester hours and 106 quality points.

In the Colleges of Arts and Sciences no senior may take for graduation credit any course open primarily to freshmen; and no junior may take for graduation credit more than one course open primarily to freshmen. A list of these courses is published in the Bulletin under "Courses of Instruction."

A student of the senior class, irrespective of his average grade in preceding years, must, in order to be eligible for graduation, complete the work of his senior year with a minimum average grade of C.

A tentative list of all candidates for the Bachelor's degree is prepared under the supervision of the dean as early in the college year as possible. A copy is furnished to each department of instruction for information and reference, and a copy is posted on the official bulletin board of the University for the information of the students concerned.

**RESIDENCE REQUIREMENTS:** A minimum of 30 semester hours of senior-level work in the Colleges of Arts and Sciences and 36 in the College of Engineering must be earned in residence. Students who meet this requirement but who still lack 6 to 8 semester hours in final fulfillment of requirements may take this work in another institution of approved standing, provided the course is approved by the head of the department concerned and by the dean.

A student who completes in a summer session the work required by the University for the Bachelor's degree will be granted the degree at the end of the summer.

#### GRADING, ATTENDANCE, REPORTS, DISMISSAL, AND EXAMINATIONS:

**GRADING:** Grades are reported so as to indicate one of four things:

(1) *Passed.* A grade of A, B, C, or D indicates that a student has passed a course. The work of this group of students is graded according to the following system: A, exceptional; B, superior; C, medium; D, inferior.

(2) *Failed.* A grade of F indicates that the student has failed the course, and in order to receive credit for the course he must repeat the work in class.

(3) *Incomplete.* (a) A grade of I may be reported by the instructor if for any reason he is unable to report the final grade at the regular time. (b) Incomplete courses must be completed before the close of the succeeding semester; otherwise the I is recorded as F, and the course must be repeated in class if the student is to receive credit for it.

(4) *Absent from final examination.* (a) The grade X indicates that the student was absent from the regularly scheduled examination. (b) A student absent from examination, if the absence has been excused by the dean of the college, may receive an examination upon the payment of a fee of \$3.00 to the Treasurer of the University. The instructor concerned arranges for the examination in cases where absences are excused. (c) A student with an X grade who has not obtained a passing grade before the end of the semester following that in which the X was incurred is regarded as having failed in the course concerned and must repeat the work in class in order to receive credit. (d) If a student's absence from an examination is not excused by the dean of the college, his grade for the course concerned is recorded as F.

If a student drops a course without permission from the dean, the grade for that course is recorded as F. If he drops with permission a course in which he is failing at that time, the grade for that course is recorded as F unless, in the judgment of the dean, circumstances do not justify this penalty.

**ATTENDANCE:** Regular and punctual attendance in class work is expected of all students. Weekly reports of all absences from class are to be made by each instructor and filed in the dean's office. No instructor has the authority to excuse a student from class attendance, and it is his duty to report all absences and tardinesses. The first three tardies in a given course are counted as one absence, and each succeeding tardy is counted as one additional absence.

To provide for absences due to brief illness and other absences for necessary reasons, one absence per semester hour credit may be incurred in each course during each semester.

Absences due to continuous illness of at least four days' duration and authorized absences for representation of the University may be excused, provided foresight has been used in previous absences.

Sophomores, juniors, and seniors who, in a normal schedule make averages of B or above in the preceding semester will be allowed two absences per semester hour but will, in all other respects, be subject to the same regulations as other students.

All absences immediately before and after announced holidays are counted as double absences.

For each unexcused excessive or consecutive absence the student incurs the loss of quality points in proportion to the number of such absences taken: one quality point for the first absence, two for the second, and three for the third. When the third unexcused, excessive, or consecutive absence is incurred, the student is debarred from the course with the loss of six quality points.

When a student's course load is reduced, because of unexcused absences, to less than 12 semester hours, he is required to withdraw from the University.

**REPORTS:** Reports on class attendance and proficiency in academic work are sent to parents or guardians after the examinations at the end of each semester. In addition, reports on freshmen are mailed at each mid-semester period.

**DISMISSAL:** A student of the freshman class to remain in the University must pass at least 6 semester hours of work in his first semester and 18 semester hours in his first year. All other students must pass at least 9 semester hours each semester. The University may require a student whose record is considered unsatisfactory to withdraw, although he has met the minimum requirements set forth in this paragraph.

**EXAMINATIONS:** Final examinations are held in all subjects in January and May.

**DEFICIENCIES IN COMPOSITION:** The following regulations have been adopted by the Faculty:

1. Any student who must take English 1 and whose score in the English placement test indicates that he is not yet ready for English 1 must earn a passing grade in English L before being permitted to enter English 1.

2. In the fall of his or her junior year every student of Trinity College and of the Woman's College must take an examination in English usage. The regulation does not apply to students of the College of Engineering, which has special course requirements in English composition in addition to English 1-2. Students with irregular schedules resulting from acceleration or transfer to Duke after the fall of their junior year should take the examination in the fall of the year most nearly approximating the fifth semester. In any event, all students must take this examination; it is a requirement for graduation. If it is not taken in the junior year, it must be taken the succeeding fall, or at such other time as may be designated by the appropriate authorities of the University. Students who are proved deficient by this examination will be required to complete satisfactorily a special non-credit laboratory course in remedial English.

3. Whenever the work of a student in any course is unsatisfactory because of errors in English, the instructor may report the student to the dean, who will require him to enroll in remedial English until, in the opinion of the director of the Remedial Laboratory, the deficiency is removed.

4. All instructors are requested to advise their students each semester concerning this regulation.



# Requirements for Degrees



DUKE UNIVERSITY offers, in Trinity College, the Woman's College, and the College of Engineering, courses of study which lead to the degrees of: Bachelor of Arts, Bachelor of Science, Bachelor of Science in Civil, Electrical, or Mechanical Engineering, and Bachelor of Science in Nursing Education.

## *Bachelor of Arts*

The requirements for the degree of Bachelor of Arts are based on the principle that the student will derive the maximum benefit from his college work if his program includes a broad distribution of studies among representative fields of culture, concentration within a special field, and some work of his own choice.

For graduation with the degree of Bachelor of Arts, the following course work must be completed in accordance with the academic regulations as stated in this Bulletin.

UNIFORM COURSE REQUIREMENTS		S.H.
English .....		6
Foreign Language .....		6-18
Natural Science .....		11
Religion .....		6
Social Science and History .....		12
Literature, Music, Art, and Philosophy .....		6
Physical Education .....		4
MAJOR AND RELATED WORK .....		42
ELECTIVES TO MAKE A TOTAL OF .....		124

These requirements are described in detail below. Descriptions of courses can be found under "Courses of Instruction, Trinity College and the Woman's College."

**ENGLISH, 6 s.h.**—This requirement is met by the completion of English 1-2. Students who demonstrate proficiency in English usage may be allowed to substitute 55 or 56 for English 1.

**FOREIGN LANGUAGE, 6 to 18 s.h.**—This requirement is met by the completion of the third college year of a foreign language. The languages which meet this requirement are French, German, Greek, Latin, and Spanish. The number of courses required depends on previous training and ability as shown on placement tests. Students presenting for entrance four units of Latin may satisfy the language requirement by the completion of the third college year of Latin or by two years of Greek. In exceptional cases, on the recommendation of the language department concerned and with the approval of the Dean, a student who has completed the second college year of one language may satisfy the requirement by the completion of the first year of another language.

**NATURAL SCIENCE, 11 s.h.**—To satisfy this requirement a student must complete a laboratory course (8 s.h.) in one of the natural sciences (botany, chemistry, geology, physics, zoology), and one course of at least 3 semester hours selected from mathematics (except Mathematics 1), logic and scientific methodology (Philosophy 48 and 104), or from the sciences listed above.

**RELIGION, 6 s.h.**—To meet this requirement 6 semester hours must be chosen from Religion 1, 2, 51, 52, 91, 93, 94, 101, 103, 104, 114, 130, 132, 181, 182.

**SOCIAL SCIENCE AND HISTORY, 12 s.h.**—(a) Students who present for entrance two acceptable units of history can satisfy this requirement by 12 semester hours chosen from History 1-2, or 51-52, Economics 51-52, Education 84, 105, Political Science 61-62, or 63-64, Psychology 91, or Sociology 91-92. Six of the 12 semester hours must be taken in economics, history, political science, or sociology. (b) Students who do not present for entrance two acceptable units of history must take History 1-2, or 51-52, and 6 semester hours selected from the other social sciences named in (a).

**LITERATURE, MUSIC, ART, AND PHILOSOPHY, 6 s.h.**—This requirement can be satisfied by a total of 6 semester hours in courses in English or American literature, foreign literature courses numbered above 100, literature courses in translation, courses in aesthetics, art, music, and courses in Philosophy except 48, 103, 104, 109, 199.

**PHYSICAL EDUCATION, 4 s.h.**—In Trinity College physical education is required during each of the first two years and is normally completed by the end of the sophomore year; in the Woman's College it is required during the first three years and is normally completed by the end of the junior year.

**MAJOR AND RELATED WORK, 42 s.h.**—Prior to registration in the spring of his sophomore year, each student is required to choose his major field and confer with his departmental adviser on the requirements for major and related work.

The major work consists of 18 to 24 semester hours in one department above the introductory courses. Introductory courses may consist of two one-semester courses in all departments except the Departments of German, Latin, and Romance Languages where the introductory courses may consist of four one-semester courses. The choice of courses must be approved by the major department. The related work must be taken in at least two other departments and is selected subject to the approval of the major department and the dean; it may not include more than one course of 6 or 8 semester hours open primarily to freshmen. Courses satisfying the uniform course requirements may also be counted toward the requirements in major and related work. Information on specific departmental requirements for major and related work can be found in the section "Courses of Instruction," and several programs of study designed as preparation for professions are given in the next section.

The total amount of work that a student may take in any one department toward the Bachelor of Arts degree is limited to a maximum of 36 semester hours. In the Department of Aesthetics, Art, and Music, and the Department of Philosophy, the Department of English, the Department of Economics and Business Administration, and the Department of Romance Languages, a total of 54 semester hours is permitted, provided a total of not more than 36 semester hours is taken in any one division of the department.

**ELECTIVES.**—In addition to the uniform courses required and major and related work, other courses must be completed to make a total of at least 124 semester hours, including 4 semester hours of physical education.

Students whose courses of study permit may elect a maximum of 18 semester hours in engineering, forestry, or medical science. The courses elected in these subjects must be approved by the major department and the dean of the college.

## CHOICE OF A MAJOR FIELD

The requirement of 42 semester hours in a major field is based primarily on the belief that some advanced study in one subject, together

with related work in allied subjects, is a valuable part of a general education. The selection of a major field usually depends on a student's cultural or vocational interests.

### GENERAL PROGRAM

The General Program is designed for the student whose primary interest is in one of the liberal arts subjects. The subjects in which major work is offered are: art, botany, chemistry, economics, education, English, French, geology, German, Greek, history, Latin, mathematics, music, philosophy, physics, political science, psychology, religion, sociology, Spanish, zoology.

### SPECIALIZED PROGRAMS

The student who has chosen a vocation may wish to include specialized training in his program. The following programs of study in preparation for various professions or professional schools are outlined for the guidance of the student.

**BUSINESS:** The student who plans to engage in some form of business may choose his major work in economics or he may take the following specified courses to satisfy the requirements for the major and related work.

Freshman Year: Economics 11 (recommended but not required), Mathematics 5 and 16.

Sophomore Year: Economics 51-52, Economics 57-58, Political Science 61-62.

Junior and Senior Years: Economics 138, Economics 143, Economics 144, Economics 153, Economics 171-172 or Economics 105 and 158, Economics 181-182, Economics 189. Three hours of the economics courses shown in Economics Major Section B.

In addition to the courses specified above, 9 semester hours from other courses in the Department of Economics and Business Administration must be elected. In the case of ROTC students these 9 semester hours may be taken in Naval Science or Air Science.

A student planning to take the examination to qualify as a Certified Public Accountant may, with the permission of the Department of Economics, substitute courses in accounting (including Economics 184) for courses 11, 138, 144, 189, and for 3 semester hours of the electives in Section B.

**RELIGIOUS WORK:** A student who plans to enter the ministry or other religious work should have a broad liberal arts training. He may major in religion or any other subject. It is suggested that the student include in his program as many as possible of the following courses.

Freshman Year: Religion 1-2, History 1-2.

Sophomore Year: Religion (6 s.h.), Economics 51-52 or Political Science 61-62, English Literature (6 s.h.).

Junior Year: Religion (6 s.h.), Psychology 91, English 151-152.

Senior Year: Religion (6 s.h.), Sociology (6 s.h.), Philosophy (6 s.h.).

**SOCIAL WORK:** The student who plans to pursue professional studies in preparation for social work (such as family welfare, child welfare, public welfare, probation and parole, and similar forms of neighborhood and community work) should take his major work in sociology, with related work in other social sciences. The following courses should be included:

History 1-2, or 51-52.  
Economics 51-52.  
Political Science 61-62.  
Psychology 91.  
Philosophy (6 s.h.).

Zoology is recommended for the required course in Natural Science. Electives should be chosen mainly from history, economics, political science, education, sociology, philosophy, psychology, or religion.

**TEACHING:** The program for students who intend to teach is designed to prepare for positions both in the elementary school and in the high school. All prospective teachers, regardless of the type of school in which they expect to teach, (a) must take a sequence of four basic courses in the Department of Education, namely, Education 84, 88, 103, and 118; (b) should read carefully the certification requirements of the state in which they plan to teach and should arrange their programs with their departmental adviser accordingly; and (c) should begin early the required sequence of courses in education, taking Education 84, preferably during the sophomore year and Education 88 during the junior year.

**HIGH-SCHOOL TEACHING.** Students may meet certification requirements by qualifying in one teaching subject, but they are strongly advised to choose their electives to meet requirements in two teaching subjects. In any case their programs must include courses in education and in other subjects sufficient to satisfy the certification requirements of the state in which they will teach. Courses in materials and methods should be taken during the junior year; and courses in observation and practice teaching may be taken *only* in the senior year.

**ELEMENTARY SCHOOL TEACHING.** Students preparing to teach in the elementary school must complete the following specific requirements: Education 101-102 and 142, History 91-92, and Political Science 63 or 61-62, Economics 115, Economics 109, or 118, or 120, Music 101, or 151, or 152, Physical Education 102, and Health Education 112. Education 101-102 (which includes observation and practice teaching) should be reserved for the senior year.

**PREPARATION FOR GRADUATE SCHOOL:** The student who plans to enter a graduate school of arts and sciences for advanced study should consult an adviser in the field of the proposed advanced study concerning suitable preparation. Most graduate schools have definite requirements in foreign languages for all students. Candidates for the

degree of Doctor of Philosophy are required to pass reading examinations, usually in German and French. In some cases other languages may be substituted. As soon as practicable, the student should ascertain the requirements of the particular graduate school he desires to enter.

**PREPARATION FOR LAW SCHOOL:** Students who plan to study law may select their major work in any field. The following courses are recommended:

Economics 51-52, 57-58.  
English 55-56.  
History 1-2 or 51-52, 105-106.  
Philosophy 48 and 91.  
Political Science 61-62.  
Sociology 91-92.

Special advisers are available for pre-legal students. The names of these advisers may be secured at the dean's office.

**PREPARATION FOR MEDICAL OR DENTAL SCHOOL:** Students planning to enter a medical or dental school should select the following foundation courses for the study of medicine:

Chemistry 1-2, 61, 151-152.  
English 55-56.  
Mathematics 5, 6.  
Physics 51-52.  
Zoology 1-2, 53.

Pre-medical and pre-dental students may take their major work in a single department, or they may satisfy the requirement for the major and related work by the completion of at least 13 semester hours chosen from the following courses in addition to the 54 semester hours of foundation courses above:

Botany 101 or Zoology 110.  
Chemistry 70.  
Mathematics 51, 52.  
Physics 125, 126.  
Psychology, 2 courses from 119, 132, 141, 144, 145, 148, 212, 215.  
Zoology 92, and 151 or 271.

Science courses numbered above 100 may be substituted for these with the approval of an adviser for the pre-medical group and the Dean. Students who plan to include psychology in their 13 hours should complete Psychology 91 in their sophomore or junior years. When the major work is in science, electives in social sciences or humanities are recommended. It is advisable to choose German or French as the foreign language. Each pre-medical student should ascertain the requirements and recommended courses of the medical school that he expects to attend.

Special advisers are available for pre-medical and pre-dental students. The names of these advisers may be secured at the dean's office.



# Bachelor of Science

For graduation with the degree of Bachelor of Science, the following course work must be completed in accordance with the academic regulations stated in this Bulletin.

UNIFORM COURSE REQUIREMENTS		S.H.
English .....		6
French and German (second college year) .....	12-24	
Mathematics .....		6
Natural Science .....		8
Economics, History, or Political Science .....		6
Religion .....		6
Restricted Elective .....		6
Physical Education .....		4
MAJOR AND RELATED WORK .....		48
ELECTIVES TO MAKE A TOTAL OF .....		124

These requirements are described below. Description of courses can be found under "Courses of Instruction, Trinity College and the Woman's College" in the *Bulletin of Undergraduate Instruction*.

**ENGLISH, 6 s.h.**—This requirement is met by the completion of English 1 and 2. Students who demonstrate proficiency in English usage may be allowed to substitute English 55 or 56 for English 1.

**FRENCH AND GERMAN.**—Bachelor of Science candidates must normally complete at least the second college year, or equivalent as determined by examination, of both French and German. In special cases, with the permission of the major department and the Dean, this requirement may be met by completing the third year of French or German.

**MATHEMATICS, 6 s.h.**—This requirement may be met by completion of Mathematics 5 and 6.

**NATURAL SCIENCE, 8 s.h.**—This requirement can be satisfied by courses in one of the natural sciences, namely, botany, chemistry, geology, physics, and zoology. The courses must include laboratory work, and may not be counted as part of the major or related work.

**SOCIAL SCIENCE AND HISTORY, 6 s.h.**—A student who does not present for entrance two acceptable units of history (exclusive of other social work) must take a course in history; otherwise, he has his choice of economics, history, or political science. The courses that will satisfy this requirement are listed under "Courses of Instruction."

**RELIGION, 6 s.h.**—To meet this requirement 6 semester hours must be chosen from Religion 1, 2, 51, 52, 91, 93, 94, 101, 103, 104, 114, 130, 132, 181, 182.

**RESTRICTED ELECTIVE, 6 s.h.**—To meet this requirement 6 semester hours in addition to other uniform course requirements must be selected from aesthetics, art, economics, education, English, foreign language, history, music, philosophy, political science, religion, and sociology.

**MAJOR AND RELATED WORK, 48 s.h.**—Major and related work consists of 48 semester hours in the Natural Sciences. This work must be selected from the departments of botany, chemistry, geology, mathematics, physics, psychology, and zoology. The major work consists of not less than 24 semester hours in one department, the choice of courses being subject to the approval of the department. The major work does not include courses primarily open to freshmen. The related work is taken in at least two other departments and is selected subject to the approval of the major department. It may not include more than one course primarily open to freshmen. A minimum of 14 semester hours of related work is required, 8 hours of which must be in laboratory science. Further informa-

tion concerning the requirements for the major and related work in the various departments will be found under "Courses of Instruction."

**ELECTIVES.**—In addition to the above, the student must elect sufficient courses to complete, with an average grade of "C," the 124 semester hours necessary for graduation.

Students whose courses of study permit may elect a maximum of 18 semester hours in engineering, forestry, or medical science. The courses elected in these subjects must be approved by the major department and the dean of the college.

The total amount of work that a student may take in any one department toward the Bachelor of Science degree is limited to a maximum of 40 semester hours.

On or before the date announced for the spring registration, every sophomore in this group should select his major department in the Natural Sciences and arrange, under the guidance of an adviser in the major department, his program of studies for the following year. He should obtain the adviser's written approval of all courses selected in the division before submitting his program to the dean for final action. In like manner, each upperclassman will recheck the courses in his division of concentration each year with a representative of his major department.

### *Bachelor of Science in Civil, Electrical, or Mechanical Engineering*

The studies for degrees in Engineering, designed for students who are preparing for civil, electrical, or mechanical engineering as a profession, lead to the following degrees: B.S. in C.E., B.S. in E.E., and B.S. in M.E. All curricula of the College of Engineering are fully accredited by the Engineers' Council for Professional Development.

#### GROUPS OF STUDIES FOR THE DEGREE OF BACHELOR OF SCIENCE IN CIVIL, ELECTRICAL, OR MECHANICAL ENGINEERING

See the *Bulletin of the College of Engineering* for courses substituted by Air ROTC and Naval ROTC students in the following curricula:

##### *Uniform Freshman Year*

FIRST SEMESTER			SECOND SEMESTER		
		S.H.			S.H.
Math 5	College Algebra	3	Math 50	Analytic Geometry	3
Math 6	Trigonometry	3	Math 51	Calculus I	3
Chem 1	Chemistry	4	Chem 2	Chemistry	4
Engl 1	English	3	Engl 2	English	3
Hist E1	History	3	Hist E2	History	3
GE 1	Drawing	2	GE 2	Descriptive Geometry	2
	Physical Education	1		Physical Education	1
		19			19

GROUP ONE  
CIVIL ENGINEERING

*Sophomore Year*

FIRST SEMESTER		S.H.	SECOND SEMESTER		S.H.
Math 52	Calculus II .....	3	Math 53	Calculus III .....	3
Phys 51	Physics .....	5	Phys 52	Physics .....	5
Econ 51	Economics .....	3	Econ 52	Economics .....	3
GE 57	Statics .....	3	GE 107	Strength of Materials .....	3
CE 61	Surveying .....	4	CE 62	Surveying .....	4
	Physical Education .....	1		Physical Education .....	1
		—			—
		19			19

*Junior Year*

FIRST SEMESTER		S.H.	SECOND SEMESTER		S.H.
Engl 93	Advanced Composition ....	3	Engl 151	Public Speaking .....	3
GE 58	Dynamics .....	3	GE 128	Hydraulics .....	3
CE 131	Structures .....	5	CE 132	Structures .....	5
CE 113	Route Surveying .....	3	CE 118	Materials .....	3
EE 123	Electric Circuits .....	4	EE 124	Electric Machinery .....	4
		—			—
		18			18

*Senior Year*

FIRST SEMESTER		S.H.	SECOND SEMESTER		S.H.
CE 123	Water Supply .....	4	CE 124	Water Purification .....	3
CE 135	Soils .....	3	CE 116	Highways .....	3
CE 133	Reinforced Concrete .....	4	CE 140	Indeterminate Structures ..	3
ME 103	Heat Power .....	3	ME 104	Heat Power .....	3
ME 115	Mech. Eng. Laboratory ....	1	ME 116	Mech. Eng. Laboratory ....	1
	Elective (Non-Technical) ..	3		Civil Eng. Elective.....	2
		—		Elective (Non-Technical) ..	3
		18			—
					18

GROUP TWO

ELECTRICAL ENGINEERING

*Sophomore Year*

FIRST SEMESTER		S.H.	SECOND SEMESTER		S.H.
Math 52	Calculus II .....	3	Math 53	Calculus III .....	3
Phys 51	Physics .....	5	Phys 52	Physics .....	5
Econ 51	Economics .....	3	Econ 52	Economics .....	3
GE 57	Statics .....	3	ME 52	Kinetics—Mechanism .....	4
EE 51	Survey—Electrical Engineering .....	1	EE 52	Fields .....	3
		—		Physical Education .....	1
Engl 93	Advanced Composition ....	3			—
	Physical Education .....	1			19
		—			
		19			

*Junior Year*

FIRST SEMESTER			SECOND SEMESTER		
		S.H.			S.H.
EE 101	Circuits .....	3	EE 102	Circuits .....	3
EE 107	Circuits Laboratory .....	1	EE 108	Circuits Laboratory .....	1
EE 105	Measurements .....	4	EE 106	Electronics .....	4
Math 131	Differential Equations ...	3	EE 148	D-C Machinery .....	3
ME 103	Heat Power .....	3	ME 104	Heat Power .....	3
ME 115	Mech. Eng. Laboratory ...	1	ME 116	Mech. Eng. Laboratory ...	1
GE 128	Hydraulics .....	3	Engl 151	Public Speaking .....	3
		18			18

*Senior Year*

FIRST SEMESTER			SECOND SEMESTER		
		S.H.			S.H.
EE 257	A-C Machinery .....	3	EE 258	A-C Machinery .....	3
EE 163	Machinery Laboratory .....	1	EE 164	Machinery Laboratory .....	1
EE 261	Communications .....	4	EE 262	Communications .....	4
EE 165	Seminar .....	1	EE 166	Seminar .....	1
EE 159	Transmission .....	3	GE 107	Strength of Materials .....	3
EE	Elective .....	3	GE 109	Materials Laboratory .....	1
	Elective (Non-Technical) ..	3	EE	Elective .....	2
		18		Elective (Non-Technical) ..	3
					18

## GROUP THREE

## MECHANICAL ENGINEERING

*Sophomore Year*

FIRST SEMESTER			SECOND SEMESTER		
		S.H.			S.H.
Math 52	Calculus II .....	3	Math 53	Calculus III .....	3
Phys 51	Physics .....	5	Phys 52	Physics .....	5
Econ 51	Economics .....	3	Econ 52	Economics .....	3
GE 57	Statics .....	3	ME 52	Kinetics-Mechanism .....	4
ME 53	Materials .....	3	Engl 93	Advanced Composition ...	3
ME 57	Processes .....	2		Physical Education .....	1
	Physical Education .....	1			19
		20			

*Junior Year*

FIRST SEMESTER			SECOND SEMESTER		
		S.H.			S.H.
ME 101	Thermodynamics .....	3	ME 102	Thermodynamics .....	3
ME 113	Mech. Eng. Laboratory ...	1	ME 114	Mech. Eng. Laboratory ...	2
ME 105	Fluid Mechanics .....	3	ME 108	Aeronautics .....	3
GE 107	Strength of Materials .....	3	ME 106	Heat Transfer .....	3
GE 109	Materials Laboratory .....	1	ME 150	Machine Design .....	3
EE 123	Electric Circuits .....	4	EE 124	Electric Machinery .....	4
Engl 151	Public Speaking .....	3			18
		18			

*Senior Year*

FIRST SEMESTER		S.H.	SECOND SEMESTER		S.H.
ME 151	Machine Design .....	4	ME 158	Industrial Engineering ....	3
ME 155	Internal Combustion Engines .....	3	ME 162	Power Plants .....	3
ME 153	Heating—Air Conditioning..	3	ME 154	Refrigeration .....	3
ME 159	Mech. Eng. Laboratory ....	2	ME 160	Mech. Eng. Laboratory ....	2
ME	Engineering Elective .....	3	ME	Engineering Elective .....	3
	Elective (Non-Technical) ..	3		Elective (Non-Technical) ..	3
		18			17

*Bachelor of Science in Nursing Education*

The requirements for the degree of Bachelor of Science in Nursing Education are designed to prepare qualified graduate nurses for administrative, teaching, and supervisory positions in schools of nursing and in nursing service agencies.

To be eligible for admission to Duke University as a candidate for this degree a student must meet the following requirements:

1. Graduation from an approved secondary school with at least fifteen acceptable units of credit. (See specific requirements for admission to Trinity College and the Woman's College.)
2. Graduation from an approved school of nursing which provides satisfactory preparation in medical, surgical, pediatric, and obstetric nursing, as a minimum.
3. Satisfactory scores on specified tests.
4. Supervisory ratings from three individuals, preferably former teachers and supervisors with whom the individual has had fairly recent contact.

Credit for 120 semester hours (exclusive of physical education) on which an average grade of at least C is made is required for the degree of Bachelor of Science in Nursing Education. The work of the final year must be taken in residence at Duke University. The program of studies leading to this degree must include:

1. MINIMUM GENERAL EDUCATION REQUIREMENTS..... S.H. 38-50  
 May be taken at Duke University or at any accredited college or university.  
 English 1-2 ..... 6  
 Natural science ..... 8  
 History (1-2 or 51-52) }  
 Economics (51-52) } ..... 6  
 Political Science (61-62) }  
 Sociology (91-92 or 101) ..... 3-6  
 Psychology (91) ..... 3-6  
 Electives ..... 12-18  
 Literature, art, music, religion, ethics, language are suggested.
2. BASIC NURSING PROGRAM.....maximum 40  
 May be taken at the Duke School of Nursing or at any approved school of nursing. The amount of credit which is granted for the nursing school program is determined on an individual basis.



- |   |    |
|---|----|
| 3. COURSES IN EDUCATION AND NURSING EDUCATION.....  | 3  |
| 88 Psychological Foundation of Modern Education.....  | 3  |
| 118 Educational Psychology—Psychological Development.....   | 3  |
| 84N Social Foundations of Nursing Education.....  | 3  |
| 101N The Curriculum of the School of Nursing.....   | 3  |
| 115-116N Nursing Education: Principles and Practices.....   | 8  |
| 117 Community Nursing Service—Seminar in Field Trips of<br>Community Agencies .....   | 3  |
| 4. FIELD OF CONCENTRATION.....  | 15 |
| Fifteen semester hours in one field, such as chemistry, physics, psychology, sociology, zoology, or in a clinical area and related subjects. No freshman work may be included in these 15 semester hours. |    |
| 5. PROFESSIONAL EXPERIENCE  |    |
| One year of experience as a graduate nurse is required before the degree is awarded.  |    |

### *Academic-Professional Courses*

The provision whereby a senior may elect the work of the first year in a professional school of the University shall apply solely to eligible students in Trinity College or the Woman's College. The privilege of completing a combined course for the degree is conditioned upon admission to the professional school at the close of the junior year. A student thus admitted registers as a senior in the College and as a first-year student in the professional school.

### ACADEMIC-FORESTRY COMBINATION

A student who has completed the program of study given below with an average grade of C or higher in accordance with the academic regulations of the undergraduate colleges may, with the approval of the Dean of the College and the Admissions Committee of the School of Forestry, transfer to the School of Forestry. Upon the satisfactory completion of the work of the first year in the School of Forestry the student may become eligible for the degree of Bachelor of Science from Trinity College, Duke University. This provision shall apply solely to eligible undergraduates who have completed three years in residence in Duke University.

Students wishing information concerning admission to the School of Forestry are invited to consult with the Dean of that School. Completion of the first three years of work necessary to qualify for the Academic-Forestry Combination does not insure admission to the Duke University School of Forestry, nor impose any restriction upon the School's freedom in selecting students for admission. The professional degree of Master of Forestry may be obtained upon the satisfactory completion of the work of the second year in the School of Forestry.

The program of studies in preparation for admission to the School of Forestry under the combination program includes the following work:

	S.H.
Uniform Course Requirements for the B.S. Degree .....	48-66
Additional Required Courses .....	24-26
Electives to Make a Total of .....	94
Summer Field Work .....	13

**UNIFORM COURSE REQUIREMENTS.** These requirements are described elsewhere in this Bulletin. Spanish may be substituted for French in the foreign language requirement. The natural science requirement is met by completion of Botany 1-2. The economics, history, or political science requirement is met by completion of Economics 51-52. The student who does not present for entrance two acceptable units in history must meet the restricted elective requirement by completion of 6 semester hours in history.

**ADDITIONAL REQUIRED COURSES.** The additional required courses are as follows:

	S.H.
Chemistry 1-2 .....	8
Engineering Drawing 1-2 .....	4
Geology 51 .....	4
Physics 1-2 or 51-52 .....	8-10
	<hr/> 24-26

**ELECTIVES.** The electives are normally chosen from botany, chemistry, economics, mathematics and philosophy. A minimum of 94 semester hours must be obtained, exclusive of summer field work, for uniform course requirements, additional required courses and electives.

**SUMMER FIELD WORK.** This work of 13 weeks, preferably to be taken upon completion of the junior year, includes:

	S.H.
Civil Engineering S110. Plane Surveying .....	4
Forestry S150. Forest Surveying .....	5
Forestry S151. Forest Mensuration .....	4
	<hr/> 13

Students in this combination should have their programs approved by the special adviser for students in the Academic-Forestry Combination. The name of this adviser may be obtained at the dean's office.

### ACADEMIC-LAW COMBINATION

A student who has completed with an average grade of C or higher, 96 semester hours of undergraduate work, including the uniform course requirements for the degree of Bachelor of Arts and the work of the Junior year in his major and related fields, may, with the approval of the dean of the College, transfer to the Duke University School of Law and be eligible for the degree of Bachelor of Arts from Duke University upon the satisfactory completion therein of the work of the first year.

It is understood that this provision shall apply solely to eligible undergraduates who have completed three years in residence in Duke University, and that not less than the full first-year's work of the Law School will be acceptable for credit towards the bachelor degree.

No single discipline or program of study can be described as the best preparation for the study of law. There are various methods of approach to legal study. Students differ with respect to the undergraduate studies by which they profit most in preparing themselves for law school.

Completion of the undergraduate work necessary to qualify for the Academic-Law Combination does not insure admission to the Duke University School of Law, nor impose any restriction whatever upon its freedom in selecting students for admission. Students wishing further information are invited to consult with the Dean of the School of Law.

### ACADEMIC-NURSING COMBINATION

A student who graduated from the Duke University School of Nursing in September, 1947, or thereafter, with an average grade of C or better, may, upon recommendation of the Dean of the School of Nursing, apply for admission to the Woman's College of Duke University. If accepted, she may obtain the degree of Bachelor of Arts or Bachelor of Science by fulfilling the requirements of either degree.

Forty semester hours of credit toward the 120 semester hours (exclusive of physical education) required for the Bachelor's degree are allowed for the three-year nursing program. At least 30 semester hours, of which 24 semester hours must be in courses numbered 100 or above, must be taken in residence in the Woman's College. An average grade of C or better is required for all work.

The program of studies leading to the degree of Bachelor of Arts must include:

	S.H.
1. UNIFORM COURSE REQUIREMENTS .....	47-59
English 1-2 .....	6
Language (completion of the third college year) .....	6-18
Natural Science .....	11
Religion .....	6
Social Science and History .....	12
Literature, Music, Art, and Philosophy .....	6
2. BASIC NURSING PROGRAM .....	40
3. FIELD OF CONCENTRATION .....	12
At least 12 semester hours in one department other than nursing in courses not primarily open to freshmen .....	12
4. ELECTIVES .....	9-21

To be eligible for the degree of Bachelor of Science, a student must complete the course of study outlined under the Requirements for the Degree of Bachelor of Science.

# Courses of Instruction

## Trinity College and the Woman's College



NOTE: Courses primarily for freshmen are numbered from 1 to 49; those primarily for sophomores are numbered from 50 to 99; those primarily for juniors and seniors from 100 to 199; those primarily for seniors and graduates from 200 to 299. The amount of credit for each course is given in semester hours following the description of the course.

Odd-numbered courses are offered in the fall semester, and even-numbered courses are offered in the spring semester. Double numbers separated by a hyphen indicate that the course is a year-course and must normally be continued throughout the year if credit is received. A student must secure written permission from the instructor in order to receive credit for either semester of a year-course. Double numbers separated by a comma indicate that although the course is a year-course credit may be received for either semester without special permission.

This is a condensed description of courses. For a full description see the *Bulletin of Undergraduate Instruction*.

### COURSES OPEN PRIMARILY TO FRESHMEN

Air Science 1-2  
Art 1-2, 1L-2L  
Botany 1-2  
Chemistry 1-2  
Economics 11  
Education 1, 5  
English 1-2  
French 1-2, 3-4  
German 1-2, 3-4  
Greek 1-2, 15  
Health Education 41  
History 1-2, E1-2

Latin 1-2, 3, 4  
Mathematics 1, 5, 6, 15, 16  
Music 1-2, 11-12, 35-36, 47-48  
Naval Science 101, 102  
Philosophy 48, 49  
Physical Education 1, 2  
Physics 1-2  
Political Science 21, 22  
Religion 1-2  
Spanish 1-2, 3-4  
Zoology 1-2

### AESTHETICS, ART, AND MUSIC

ASSISTANT PROFESSOR EARL G. MUELLER, CHAIRMAN OF THE EXECUTIVE COMMITTEE;  
ASSOCIATE PROFESSOR MARKMAN, DIRECTOR OF UNDERGRADUATE STUDIES IN ART;  
ASSOCIATE PROFESSOR HALL, SUPERVISOR OF FRESHMAN INSTRUCTION IN ART;  
ASSISTANT PROFESSOR JULIA W. MUELLER, DIRECTOR OF UNDERGRADUATE  
STUDIES IN MUSIC; ASSOCIATE PROFESSOR BONE, SUPERVISOR OF  
FRESHMAN INSTRUCTION IN MUSIC; ASSOCIATE PROFESSORS  
JENKINS AND SUNDERLAND; ASSISTANT PROFESSORS  
BRYAN, KLENZ, SAVILLE, WITHERS AND WOOD;  
MR. BRODERSON

### AESTHETICS

FOR SENIORS AND GRADUATES

201-202. THE PHILOSOPHY OF ART.—6 s.h.  
[Not offered in 1953-54]

213-214. HISTORY OF AESTHETICS.—6 s.h.  
[Not offered in 1953-54]

## ART

*After 1953-54 the introductory courses 1-2 or 51-52 will be prerequisite for all courses in the History of Art and 1L-2L or 51L-52L for all courses in Design.*

## FUNDAMENTALS

- |                                    |              |
|------------------------------------|--------------|
| 1-2. INTRODUCTION TO ART.—6 s.h.   | STAFF        |
| 1L-2L. DESIGN LABORATORY.—2 s.h.   | DESIGN STAFF |
| 51-52. INTRODUCTION TO ART.—6 s.h. | STAFF        |
| 51L-52L. DESIGN LABORATORY.—2 s.h. | DESIGN STAFF |

## HISTORY OF ART

- |  |                                |
|--|--------------------------------|
| 101. MEDIAEVAL ARCHITECTURE.—3 s.h.                                    | ASSOCIATE PROFESSOR SUNDERLAND |
| 102. MEDIAEVAL PAINTING AND SCULPTURE.—3 s.h.                          | ASSOCIATE PROFESSOR SUNDERLAND |
| 103. RENAISSANCE AND BAROQUE ARCHITECTURE: ITALY.—3 s.h.               | ASSOCIATE PROFESSOR HALL       |
| 104. RENAISSANCE AND BAROQUE ARCHITECTURE: SPAIN AND THE NORTH.—3 s.h. | ASSOCIATE PROFESSOR HALL       |
| 105. EUROPEAN ARCHITECTURE SINCE 1700.—3 s.h.                          | ASSOCIATE PROFESSOR HALL       |
| 106. ARCHITECTURE OF THE AMERICAS.—3 s.h.                              | ASSOCIATE PROFESSOR HALL       |
| 110. ENGLISH ARCHITECTURE.—3 s.h.                                      | ASSOCIATE PROFESSOR HALL       |
| 123. RENAISSANCE PAINTING: ITALY.—3 s.h.                               | ASSOCIATE PROFESSOR SUNDERLAND |
| 124. ITALIAN ART AFTER 1500.—3 s.h.                                    | ASSOCIATE PROFESSOR JENKINS    |
| 125. RENAISSANCE PAINTING: THE NORTH.—3 s.h.                           | ASSOCIATE PROFESSOR SUNDERLAND |
| 126. BAROQUE PAINTING: THE NORTH.—3 s.h.                               | ASSOCIATE PROFESSOR SUNDERLAND |
| 129. PAINTING SINCE 1700.—3 s.h.                                       | ASSOCIATE PROFESSOR SUNDERLAND |
| 130. CONTEMPORARY ART.—3 s.h.  | ASSISTANT PROFESSOR E. MUELLER |
| 150. SURVEY OF PAINTING.—3 s.h.  | ASSOCIATE PROFESSOR JENKINS    |
| 215. RELIGIOUS ART OF THE ANCIENT NEAR EAST.—3 s.h.                    | ASSOCIATE PROFESSOR MARKMAN    |
| 216. RELIGIOUS ART OF THE CLASSICAL WORLD.—3 s.h.                      | ASSOCIATE PROFESSOR MARKMAN    |
| 217. AEGEAN ART.—3 s.h.  | ASSOCIATE PROFESSOR MARKMAN    |
| 218. EARLY GREEK ART.—3 s.h.   | ASSOCIATE PROFESSOR MARKMAN    |

## DESIGN

*Students other than art majors may receive not more than eight semester hours credit for work in studio courses. For any number of semester hours of credit in studio courses an equal number of hours must be taken in history and criticism.*

- |   |  |
|---|--|
| 53-54. BEGINNING STUDIO.—4 s.h.                           | ASSISTANT PROFESSOR MUELLER, MR. BRODERSON |
| 55, 56. PAINTING.—4 s.h.                                  |  |
| 157, 158. ADVANCED PAINTING.—Prerequisite: 55, 56. 4 s.h. | ASSISTANT PROFESSOR MUELLER, MR. BRODERSON |
| 159, 160. PRINTMAKING.—Prerequisite: 53-54. 4 s.h.        | ASSISTANT PROFESSOR MUELLER, MR. BRODERSON |



## DEPARTMENTAL MAJOR IN ART

*Prerequisites:* Introduction to Art (1-2 or 51-52). Design Laboratory (1L-2L or 51L-52L).

*Major Requirements:* The student will select in consultation with his departmental adviser a sequence of courses emphasizing either history or design.

History of Art: 24 additional semester hours, of which six hours must be in the 200 group, and four hours may be in design. Distribution emphasizing at least two special areas of study is to be determined with the adviser.

Design: 22 additional semester hours, of which sixteen hours must be in design and six hours from courses 102, 123, 124, 125, 126, 129 or 130.

## MUSIC

Courses in music are offered both for the general student who wishes to acquire knowledge of music as literature and on a more technical level for those prepared to major in the field. The courses marked \* are open to general students without prerequisites.

## THEORY

\*11-12. THEORY I.—8 s.h.

STAFF

\*61-62. THEORY I.—8 s.h.

STAFF

73-74. THEORY II.—Prerequisite: Music 11-12 or 61-62. 6 s.h.

ASSISTANT PROFESSORS BRYAN AND KLENZ

117-118. THEORY III.—Prerequisites: Music 11-12 or 61-62, and 73-74. 4 s.h.

ASSISTANT PROFESSOR KLENZ

121. CONDUCTING.—Prerequisites: Music 11-12 or 61-62, and 73, or consent of the instructor. 3 s.h.

ASSOCIATE PROFESSOR BONE

122. ORCHESTRATION.—Prerequisites: Music 11-12 or 61-62, and 73, or consent of the instructor. 3 s.h.

ASSOCIATE PROFESSOR BONE

## HISTORY AND CRITICISM

\*1-2. INTRODUCTION TO MUSIC.—6 s.h.

ASSISTANT PROFESSOR WITHERS

\*51-52. INTRODUCTION TO MUSIC.—6 s.h.

ASSISTANT PROFESSOR J. MUELLER

65. PIANO ENSEMBLE.—Prerequisites: Music 47A, 48A and 11-12 or 61-62, or consent of the instructor. 1 s.h.

ASSISTANT PROFESSOR WITHERS

66. MIXED ENSEMBLE.—1 s.h.

STAFF

95-96. HISTORY OF MUSIC I.—Prerequisites: Music 1-2 or 51-52 or 11-12, or consent of the instructor. 6 s.h.

ASSISTANT PROFESSOR SAVILLE

\*133. ORCHESTRAL LITERATURE.—3 s.h.

ASSOCIATE PROFESSOR BONE

\*134. CHORAL LITERATURE.—3 s.h.

ASSISTANT PROFESSOR SAVILLE

135. PIANO LITERATURE.—Prerequisites: Music 47A, 48A, 97A, and 98A, or consent of the instructor. 3 s.h.

ASSISTANT PROFESSOR WITHERS

136. VOCAL REPERTOIRE.—3 s.h.

ASSISTANT PROFESSOR WOOD

137. CHAMBER MUSIC.—Prerequisites: Music 1-2 or 51-52, or 11-12 or 61-62, or consent of the instructor. 3 s.h.

ASSISTANT PROFESSOR J. MUELLER

138. CONTEMPORARY MUSIC.—Prerequisites: Music 1-2 or 51-52, or 11-12, or 61-62, or consent of the instructor. 3 s.h.

ASSISTANT PROFESSOR KLENZ

145-146. HISTORY OF MUSIC II.—Prerequisites: Music 95-96 or consent of the instructor. 6 s.h.

ASSISTANT PROFESSOR SAVILLE

\*164. MUSIC IN THE NINETEENTH CENTURY.—3 s.h.

ASSISTANT PROFESSOR J. MUELLER

\*165. OPERA.—3 s.h.

ASSISTANT PROFESSOR SAVILLE

195-196. COLLEGIUM MUSICUM (HISTORY OF MUSIC III).—4 s.h. Laboratory may be taken separately for credit of 2 s.h. ASSISTANT PROFESSOR KLENZ

#### MUSIC EDUCATION

101-102. PUBLIC SCHOOL VOCAL METHODS.—6 s.h.

ASSISTANT PROFESSOR SAVILLE

103-104. INSTRUMENTAL METHODS.—Prerequisites: Music 11-12 or 61-62, or consent of the instructor. 6 s.h. ASSOCIATE PROFESSOR BONE

106. PIANO METHODS AND MATERIALS.—Prerequisites: Music 47A, 48A, 97A, and 98A, or consent of the instructor. 3 s.h. ASSISTANT PROFESSOR WITHERS

107. VOCAL PEDAGOGY.—3 s.h.

ASSISTANT PROFESSOR WOOD

151-152. PUBLIC SCHOOL MUSIC EDUCATION.—6 s.h.

ASSISTANT PROFESSOR SAVILLE

#### APPLIED MUSIC

Members of the Department offer instruction in the following media: A. Piano; B. Strings; C. Woodwinds; D. Brass; E. Voice.

A student who plans to take Applied Music should consult the appropriate faculty member as early as possible before registering for the course offered in his chosen medium at his class level. His proficiency before registration is tested by audition and rated as Grade I-VIII. Upon satisfactory completion of the course his proficiency is again rated, and his Grade recorded as a Roman numeral following the course number; e.g., a freshman who passes the first semester course in Piano with a proficiency rating of Grade VI is recorded as having completed Music 47A-VI, a senior who passes the first semester course in Violin with a proficiency rating of Grade II is recorded as having completed Music 197B-II, and so on. This is in addition to the customary letter-grades recorded for students in all courses.

35E-36E. VOCAL DICTION.—2 s.h.

ASSISTANT PROFESSOR WOOD

47A-48A, 97A-98A, 147A-148A, 197A-198A. PIANO.—2 s.h.

ASSISTANT PROFESSORS SAVILLE AND WITHERS

47B-48B, 97B-98B, 147B-148B, 197B-198B. VIOLIN, VIOLA, CELLO.—2 s.h.

ASSISTANT PROFESSORS KLENZ AND J. MUELLER

47C-48C, 97C-98C, 147C-148C, 197C-198C. WOODWINDS.—2 s.h.

ASSOCIATE PROFESSOR BONE

47D-48D, 97D-98D, 147D-148D, 197D-198D. BRASS.—2 s.h.

ASSISTANT PROFESSOR BRYAN

47E-48E, 97E-98E, 147E-148E, 197E-198E. VOICE.—2 s.h.

ASSISTANT PROFESSOR WOOD

*Requirements and Credits:* One semester hour of credit is allowed for one period of instruction per week, and a minimum of one hour of practice daily, under the particular conditions specified below, and in accordance with standard university practice in grading proficiency. Instruction may be private or in classes. Class instruction, limited to a minimum of 4 and a maximum of 7 students, is restricted to the first 4 grades. For any number of semester hours of credit in Applied Music, an equal number of hours must be taken in Music Theory or Music History.

Majors in Music Theory must earn 6 semester hours credit in Applied Music. Credit may be reckoned from Grade I.

Majors in Music History and Criticism must earn 6 semester hours credit in Applied Music. Credit may be reckoned from Grade I.

Majors in Music Education must earn 7 semester hours credit in Applied Music, as follows:

General (Choral) majors:

Major medium, reckoned from Grade III.—5 s.h.

Minor medium, reckoned from Grade I.—2 s.h.

Instrumental majors:

Major medium, reckoned from Grade III.—5 s.h.

Minor medium, reckoned from Grade I.—2 s.h.

Piano proficiency through Grade II.

Students other than Music Majors may receive not more than 8 semester hours credit for work in Applied Music. Credit may be reckoned from Grade I.

*Fees per Semester:* Fees for instruction in Applied Music include rental of practice facilities sufficient to meet the credit requirements. They are payable to the Treasurer's Office of Duke University at the beginning of each semester, as follows:

One ½ hour private lesson per week for one semester.....	\$45.00
Two ½ hour private lessons per week or one 1 hour private lesson per week for one semester.....	80.00
One 1 hour class lesson per week for one semester.....	25.00
One hour's daily use of cubicle with piano for one semester....	15.00
One hour's daily use of cubicle without piano for one semester..	10.00

#### DEPARTMENTAL MAJOR IN MUSIC

*Prerequisite:* Music II-12 or 61-62.

*Major Requirements:* 24 s.h. including 6 s.h. in Applied Music. The major student will select, in consultation with his departmental adviser, a sequence of Music courses emphasizing (a) theory, or (b) history and criticism, or (c) education, or (d) the use and understanding of a particular medium.

#### DEPARTMENTAL ORGANIZATIONS

Duke University Concert Band  
Duke University Marching Band  
Duke University Brass Ensemble  
Duke University Chamber Orchestra  
Duke University Symphony Orchestra  
Duke University Madrigal Singers  
Collegium Musicum

#### AIR SCIENCE

PROFESSOR KNIGHT, COLONEL, USAF, CHAIRMAN; ASSOCIATE PROFESSOR MCBRYDE, LIEUTENANT COLONEL, USAF, DIRECTOR OF UNDERGRADUATE STUDIES; ASSISTANT PROFESSOR SMITH, CAPTAIN, USAF, SUPERVISOR OF FRESHMAN INSTRUCTION; ASSISTANT PROFESSORS RENKEN, MAJOR, USAF, AND CLARK, CAPTAIN, USAF; MAJOR MYERS, USAF, CAPTAIN DELLINGER, USAF, AND CAPTAIN STEVENS, USAF

**ELIGIBILITY REQUIREMENTS.**—All physically qualified freshmen who are citizens of the United States and are enrolled in Trinity College or the College of Engineering are eligible to enroll in the Air Force ROTC. Veterans may be exempted from the freshman and sophomore courses (AS 1-2 or AS 51-52). In special cases where permission has been granted, certain qualified students from the Graduate and Professional Schools may be enrolled.

**AIR FORCE ROTC COURSES.**—For the academic year 1953-54, all freshmen, sophomore and junior courses are the same for students of Trinity College and the College of Engineering.

Advanced courses for senior year (academic year 1953-54 only) consist of three options as follows: Administration and Logistics, open to students of Trinity College; Flight Operations, open to students of both Trinity College and the College of Engineering who desire to become flying officers; General Technical, for Engineering students and students majoring in Mathematics, Physics and Chemistry.

The courses are established by the United States Air Force and are approved by the College as electives for all undergraduates. Field or laboratory instruction in leadership, drill, and exercise of command is included as a part of all courses to indoctrinate the student in the fundamental principles of command.

#### BASIC COURSES

The following courses are required of students in the Air Force Reserve Officers' Training Corps, as outlined in the various curricula:

AS 1-2. FIRST YEAR BASIC AIR SCIENCE.—4 s.h.

STAFF

AS 51-52. SECOND YEAR BASIC AIR SCIENCE.—4 s.h.

STAFF

### ADVANCED COURSES

All students selected to continue in Air Science pursue:

AS 101-102. FIRST YEAR ADVANCED AIR SCIENCE.—Prerequisites: AS 1-2 and 51-52 or equivalent. 8 s.h.

STAFF

Air Science seniors pursue one of the following specialties during academic year 1953-54:

### ADMINISTRATION AND LOGISTICS

AS 201-202. ADVANCED AIR FORCE ADMINISTRATION.—Prerequisites: AS 1-2 and 51-52 or equivalent, and AS 101-102. 8 s.h.

LIEUTENANT COLONEL MCBRYDE AND CAPTAIN CLARK

### FLIGHT OPERATIONS

AS 221-222. ADVANCED FLIGHT OPERATIONS.—Prerequisites: AS 1-2, 51-52 or equivalent, and 121-122. 8 s.h.

STAFF

### GENERAL TECHNICAL

AS 213-232. ADVANCED AIR FORCE TECHNOLOGY.—Prerequisites: AS 1-2, 51-52 or equivalent, and 131-132. 8 s.h.

COLONEL KNIGHT

## BOTANY

PROFESSOR BLOMQUIST, CHAIRMAN; PROFESSOR OOSTING, DIRECTOR OF UNDERGRADUATE STUDIES; ASSOCIATE PROFESSOR ANDERSON AND MR. MANLY, SUPERVISORS OF FRESHMAN INSTRUCTION; ASSISTANT PROFESSOR PHILPOTT, SUPERVISOR OF FRESHMAN INSTRUCTION (WOMAN'S COLLEGE); PROFESSORS HARRAR, KRAMER AND WOLF; ASSOCIATE PROFESSORS ANDERSON, BILLINGS, NAYLOR, AND PERRY; ASSISTANT PROFESSOR WARREN; MR. SHIRLING; AND ASSISTANTS

1. GENERAL BOTANY.—Three two-hour periods. 4 s.h.

STAFF

2. GENERAL BOTANY.—Prerequisite: Botany 1. 4 s.h.

STAFF

51. CULTURE AND PROPAGATION OF PLANTS.—Prerequisite: one year of botany. 4 s.h.

PROFESSOR KRAMER

52. PLANT IDENTIFICATION.—Prerequisite: one year of botany. 4 s.h.

PROFESSOR BLOMQUIST

53. ECOLOGY OF ECONOMIC PLANTS.—Prerequisite: one year of a natural science. 3 s.h.

PROFESSOR OOSTING

55. MORPHOLOGY AND ANATOMY OF VASCULAR PLANTS.—Prerequisite: one year of botany. 4 s.h.

ASSISTANT PROFESSOR PHILPOTT

101. PRINCIPLES OF HEREDITY.—Prerequisite: one (high-school or college) course in biology, botany, or zoology. High-school or college algebra recommended. 3 or 4 s.h.

ASSOCIATE PROFESSOR PERRY

103. GENERAL BACTERIOLOGY.—Prerequisite: one year of botany or zoology, or equivalent. 4 s.h.

ASSISTANT PROFESSOR WARREN

104. THE STRUCTURE AND IDENTIFICATION OF LOWER PLANTS.—Prerequisite: one year of botany. 4 s.h.

ASSOCIATE PROFESSOR ANDERSON

151. INTRODUCTORY PLANT PHYSIOLOGY.—Prerequisite: Botany 1, 2 or equivalent; one year of chemistry recommended. 4 s.h.

PROFESSOR KRAMER

156. PLANT ECOLOGY.—Prerequisites: Botany 1, 2 and 52, or equivalent. 4 s.h.

ASSOCIATE PROFESSOR BILLINGS

202. GENETICS.—Prerequisites: one year of botany or zoology, or equivalent, and college algebra. 4 s.h.

ASSOCIATE PROFESSOR PERRY

203. PLANT CYTOLOGY.—Prerequisite: one year of botany. 4 s.h.  
ASSOCIATE PROFESSOR ANDERSON
204. ADVANCED PLANT ANATOMY.—Prerequisite: Botany 55 or equivalent. 4 s.h.
216. BOTANICAL MICROTECHNIQUE.—Prerequisite: two semesters of natural science. 4 s.h.  
ASSOCIATE PROFESSOR ANDERSON
221. STRUCTURE AND CLASSIFICATION OF FUNGI.—Prerequisite: two semesters of botany. 4 s.h.  
PROFESSOR WOLF
222. PHYSIOLOGY AND ECOLOGY OF FUNGI.—Prerequisite: Botany 221 or equivalent. 4 s.h.  
PROFESSOR WOLF
- 225-226. SPECIAL PROBLEMS.
- a. BACTERIOLOGY, MYCOLOGY, AND PLANT PATHOLOGY.  
ASSISTANT PROFESSOR WARREN, PROFESSOR WOLF
- b. CYTOLOGY.  
ASSOCIATE PROFESSOR ANDERSON
- c. ECOLOGY.  
PROFESSOR OOSTING AND ASSOCIATE PROFESSOR BILLINGS
- d. GENETICS.  
ASSOCIATE PROFESSOR PERRY
- e. MORPHOLOGY AND ANATOMY OF HIGHER GROUPS.  
PROFESSOR HARRAR AND OOSTING
- f. MORPHOLOGY AND TAXONOMY OF LOWER GROUPS.  
PROFESSOR BLUMQUIST AND ASSOCIATE PROFESSOR ANDERSON
- g. PHYSIOLOGY.  
PROFESSOR KRAMER AND ASSOCIATE PROFESSOR NAYLOR
- h. PLANT MICROCHEMISTRY.
- i. TAXONOMY OF HIGHER GROUPS.  
PROFESSOR BLUMQUIST
- j. SENIOR SEMINAR.—1 s.h.  
STAFF
252. ADVANCED PLANT PHYSIOLOGY.—Prerequisite: Botany 151 or equivalent; organic chemistry recommended. 4 s.h.  
ASSOCIATE PROFESSOR NAYLOR
253. PHYSIOLOGY OF GROWTH AND DEVELOPMENT.—Prerequisite: Botany 151 or equivalent; organic chemistry recommended. 3 s.h.  
ASSOCIATE PROFESSOR NAYLOR
254. PLANT WATER RELATIONS.—Prerequisite: Botany 151 or equivalent. 3 s.h.  
PROFESSOR KRAMER
255. ADVANCED TAXONOMY.—Prerequisite: two years of botany, including Botany 52 or equivalent. 4 s.h.  
PROFESSOR BLUMQUIST
256. COMMUNITY ANALYSIS AND CLASSIFICATION.—Prerequisite: Botany 156 or equivalent. 3 s.h.  
PROFESSOR OOSTING
257. PRINCIPLES OF PLANT DISTRIBUTION.—Prerequisite: 156 or equivalent. 3 s.h.  
ASSOCIATE PROFESSOR BILLINGS
259. ENVIRONMENTAL MEASUREMENTS.—Prerequisite: Botany 151 and 156 or equivalent. 3 s.h.  
ASSOCIATE PROFESSOR BILLINGS

## FOREST BOTANY

224. FOREST PATHOLOGY.—Prerequisites: Botany 1, 2. 3 or 4 s.h.  
PROFESSOR WOLF
253. DENDROLOGY.—Prerequisite: one year of botany. 3 s.h.

PROFESSOR HARRAR

Related courses which may be counted toward a major in botany. Zoology 110.  
Introduction to Genetics. 2 s.h.  
ASSISTANT PROFESSOR ROBERTS

## DEPARTMENTAL MAJOR

*Prerequisites:* Botany 1 and 2.

*Major Requirements:* A minimum of 21 hours (B.S., 24 hours) of work including courses 52, 55, and 104. The remaining hours may be selected from any other courses in the Department for which the student is eligible, subject to the approval



of the Departmental Adviser. All majors are expected to register for Senior Seminar for one semester of their senior year.

*Related Work:* Courses in at least two Natural Science Departments sufficient to total, with major work, 42 s.h. (B.S., 48 s.h.).

## CHEMISTRY

PROFESSOR HOBBS, CHAIRMAN; PROFESSOR SAYLOR, DIRECTOR OF UNDERGRADUATE STUDIES;  
PROFESSOR HILL, SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSORS BIGELOW,  
GLOCKLER (VISITING LECTURER), GROSS, HAUSER, LONDON AND VOSBURGH;  
ASSOCIATE PROFESSORS BRADSHER AND BROWN; ASSISTANT PROFESSORS  
STROBEL AND WILDER; DRs. CLEVER AND KRIGBAUM,  
AND ASSISTANTS

### 1-2. GENERAL INORGANIC CHEMISTRY.—8 s.h.

PROFESSOR HILL; ASSOCIATE PROFESSORS BRADSHER AND BROWN;  
ASSISTANT PROFESSORS STROBEL AND WILDER; DRs. CLEVER  
AND KRIGBAUM; AND ASSISTANTS

61. FUNDAMENTALS OF ANALYTICAL CHEMISTRY.—Prerequisites: Chemistry 1-2, and Mathematics 6 or equivalent. 4 s.h.

PROFESSORS SAYLOR AND VOSBURGH; ASSISTANT PROFESSORS STROBEL  
AND WILDER; DRs. CLEVER AND KRIGBAUM; AND ASSISTANTS

### 70. QUANTITATIVE ANALYSIS.—Prerequisite: Chemistry 61. 4 s.h.

PROFESSORS SAYLOR AND VOSBURGH; ASSISTANT PROFESSORS STROBEL  
AND WILDER; DRs. CLEVER AND KRIGBAUM; AND ASSISTANTS

131. ADVANCED QUANTITATIVE ANALYSIS.—Prerequisite: Chemistry 70.  
3 s.h. PROFESSORS VOSBURGH AND SAYLOR AND ASSISTANTS

151-152. ORGANIC CHEMISTRY.—Prerequisite: Chemistry 61. Course 151 is  
prerequisite for 152. 8 s.h.

PROFESSORS BIGELOW AND HAUSER; ASSOCIATE PROFESSORS BRADSHER  
AND BROWN; ASSISTANT PROFESSOR WILDER; AND ASSISTANTS

206. ELEMENTS OF THEORETICAL CHEMISTRY.—Prerequisites: Chemistry  
70, 151-152, Physics 51-52 or 1-2 and Mathematics. 6 s.h. With the permission  
of the Director of Graduate Studies, graduate students from other departments  
may offer other advanced science courses in place of some of the prerequisites.  
4 s.h. PROFESSORS SAYLOR AND HOBBS

215-216. ADVANCED INORGANIC CHEMISTRY.—Prerequisites: Chemistry  
70, 151-152, and 261-262, or 206. 6 s.h. PROFESSORS VOSBURGH AND HILL

233. INSTRUMENTAL ANALYSIS.—Prerequisites: Chemistry 70 and one year  
of physics. 2 s.h.

ASSISTANT PROFESSOR STROBEL; PROFESSORS HOBBS, SAYLOR AND VOSBURGH

234. PHYSICO-CHEMICAL METHODS OF ANALYSIS.—Prerequisites: Chemistry  
70 and either 261-262 or 206; either of the latter may be taken concurrently.  
2 s.h. ASSISTANT PROFESSOR STROBEL; PROFESSORS HOBBS, SAYLOR AND VOSBURGH

236. THEORY OF ANALYTICAL CHEMISTRY.—Prerequisites: Chemistry 70  
and 261-262. 1 s.h. PROFESSOR VOSBURGH

251. QUALITATIVE ORGANIC ANALYSIS.—Prerequisites: Chemistry 70 and  
151-152. 3 s.h. PROFESSOR HAUSER AND ASSISTANTS

252. ADVANCED ORGANIC PREPARATIONS.—Prerequisite: Chemistry 70  
and 151-152. 2 s.h. ASSOCIATE PROFESSOR BROWN AND PROFESSOR BIGELOW

253-254. ADVANCED ORGANIC CHEMISTRY.—Undergraduates are admitted  
to this course only by permission of the Director of Undergraduate Studies. Pre-  
requisites: Chemistry 70 and 151-152. 4 s.h. PROFESSORS BIGELOW AND HAUSER

261-262. PHYSICAL CHEMISTRY.—Prerequisites: Chemistry 70, 151-152,  
Physics 51-52 or 1-2 and Mathematics 51-52 or equivalent. 6 s.h.

PROFESSORS HOBBS AND SAYLOR

271. INTRODUCTION TO RESEARCH.—1 s.h. ASSOCIATE PROFESSOR BROWN

275-276. RESEARCH.—3 or 6 s.h.

PROFESSORS BIGELOW, GROSS, HAUSER, HILL, HOBBS, LONDON, SAYLOR AND VOSBURGH; ASSOCIATE PROFESSORS BRADSHER AND BROWN

### DEPARTMENTAL MAJOR

A. For the degree of A.B.

*Prerequisites:* Chemistry I-2, Mathematics, 6 s.h.

*Major Requirements:* 22 s.h., including Chemistry 61, 70, 151-152, and an additional 6 or 7 s.h., which may be satisfied by 261-262 or by 206 together with 2 or 3 s.h. selected from courses 131, 233, 234 and 251.

*Related Work:* 20 s.h., including Physics, 8 s.h., and a total of 12 s.h. additional, usually in Botany, Geology, Mathematics, Physics, or Zoology.

B. For the degree of B.S.

*Prerequisites:* Chemistry 1-2, Mathematics, 6 s.h.

*Major Requirements:* Chemistry 61, 70, 131, 151-152, 234, 251, 261-262.

*Related Work:* 18 s.h., including Physics, 8 or 10 s.h., and Mathematics 50, 51, and 52.

The language requirements must be satisfied by German and French.

### ECONOMICS AND BUSINESS ADMINISTRATION

PROFESSOR HOOVER, CHAIRMAN; PROFESSOR DE VYVER, DIRECTOR OF UNDERGRADUATE STUDIES; PROFESSORS BLACK, HANNA, HUMPHREY, RATCHFORD, SIMMONS, SMITH, SPENGLER, AND VON BECKERATH; ASSOCIATE PROFESSORS JOERG, LONDON, LEMERT, MANN, SAVILLE, AND SHIELDS; ASSISTANT PROFESSORS CARTTER, DEWEY, DICKENS, AND MCKENZIE; MESSRS. BOWDEN, PEARCE, AND WALTER

The courses offered by the Department are listed under two divisions, Economics and Business Administration.

Courses in Business Administration, although more concerned with general principles than with specific applications, stress in greater measure than courses in Economics the knowledge and techniques useful to students definitely preparing for business careers. The student who majors in Business Administration may elect courses in accountancy, business law, and related work, sufficient to qualify for admission to C.P.A. examinations.

### ECONOMICS

51-52. PRINCIPLES OF ECONOMICS.—6 s.h.

STAFF

This course must be passed by all students planning to elect further courses in Economics and Business Administration.

One section of Economics 51 will be offered during the spring semester, and one section of Economics 52 will be offered during the fall semester.

103. TRANSPORTATION.—3 s.h.

ASSOCIATE PROFESSOR LONDON

107. CONSERVATION.—3 s.h.

ASSOCIATE PROFESSOR LEMERT

132. THE ECONOMIC HISTORY OF THE UNITED STATES.—3 s.h.

PROFESSOR SMITH

138. BUSINESS STATISTICS.—Prerequisite: Mathematics 5 or the equivalent. Offered both semesters. 3 s.h.

PROFESSOR HANNA; ASSOCIATE PROFESSOR SAVILLE

Open to juniors and to sophomores in the second semester. Not open to seniors except with the permission of the Director of Undergraduate Studies.

152. GLOBAL GEOGRAPHY.—No prerequisite. 3 s.h.

ASSOCIATE PROFESSOR LEMERT

153. MONEY, CREDIT AND BANKING.—3 s.h.

PROFESSOR SIMMONS; PROFESSOR RATCHFORD; ASSOCIATE PROFESSOR SAVILLE; MR. WALTER

155. LABOR PROBLEMS.—3 s.h.  
PROFESSOR DE VYVER; ASSISTANT PROFESSOR CARTTER
161. EUROPEAN ECONOMIC PROBLEMS.—3 s.h. PROFESSOR HUMPHREY
169. ECONOMICS OF CONSUMPTION.—3 s.h. ASSOCIATE PROFESSOR SAVILLE
186. LATIN-AMERICAN ECONOMICS.—3 s.h. PROFESSOR SMITH
187. PUBLIC FINANCE.—3 s.h. PROFESSOR RATCHFORD
189. BUSINESS AND GOVERNMENT.—3 s.h. ASSISTANT PROFESSOR DEWEY
199. ECONOMIC ANALYSIS.—3 s.h. ASSISTANT PROFESSOR MCKENZIE
204. ADVANCED MONEY AND BANKING.—3 s.h. PROFESSOR SIMMONS
215. ECONOMIC SYSTEMS.—Credit for this course will be given only if the student takes Economics 216. 3 s.h. PROFESSOR HOOVER
216. ECONOMIC FUNCTIONS OF THE STATE.—A continuation of Economics 215. Prerequisite: Economics 215. 3 s.h. PROFESSOR HOOVER
217. POPULATION PROBLEMS AND RESOURCES.—3 s.h. PROFESSOR SPENGLER
218. BUSINESS CYCLES.—3 s.h. PROFESSOR HUMPHREY
231. ECONOMIC HISTORY OF EUROPE.—3 s.h. PROFESSOR SMITH
233. STATE AND LOCAL FINANCE.—Prerequisite: Economics 187 or consent of instructor. 3 s.h. PROFESSOR RATCHFORD
234. FEDERAL FINANCE.—Prerequisite: Economics 187 or consent of instructor. 3 s.h. PROFESSOR RATCHFORD
235. FISCAL POLICY.—3 s.h. PROFESSOR RATCHFORD
236. TAXATION AND GOVERNMENT FINANCE.—Not open to students who have received credit for Economics 187 or equivalent. 3 s.h. PROFESSOR RATCHFORD
- 237-238. STATISTICAL METHODS.—Prerequisite: Economics 138 or consent of the instructor. Either semester may be taken for credit. 6 s.h. PROFESSOR HANNA
240. NATIONAL INCOME.—3 s.h. PROFESSOR HANNA
- 241-242. VALUE AND DISTRIBUTION.—6 s.h. PROFESSOR SPENGLER
243. MATHEMATICAL ECONOMICS.—3 s.h. ASSISTANT PROFESSOR MCKENZIE
244. INTRODUCTION TO ECONOMETRICS.—3 s.h.  
ASSISTANT PROFESSOR MCKENZIE
245. PROBLEMS OF MODERN INDUSTRIALISM.—3 s.h.  
PROFESSOR VON BECKERATH
256. LABOR LEGISLATION AND SOCIAL INSURANCE.—Prerequisite: Economics 155 or with the consent of the instructor. 3 s.h. PROFESSOR DE VYVER
257. DYNAMICS OF THE LABOR MOVEMENT.—3 s.h.  
ASSISTANT PROFESSOR CARTTER
258. LABOR MARKET ANALYSIS.—3 s.h. ASSISTANT PROFESSOR CARTTER
262. TRADE UNIONISM AND COLLECTIVE BARGAINING.—Prerequisite: Economics 155 or equivalent. 3 s.h. PROFESSOR DE VYVER
265. INTERNATIONAL TRADE AND FINANCE.—3 s.h. PROFESSOR HUMPHREY
268. COMPETITIVE VERSUS MONOPOLISTIC ENTERPRISE.—3 s.h.  
[Not offered in 1953-54] PROFESSOR VON BECKERATH
269. CONTEMPORARY EUROPEAN LABOR PROBLEMS.—3 s.h. (Same as Political Science 272 and Sociology 272) VISITING PROFESSOR WESTPHALEN
280. ADVANCED ECONOMIC PROBLEMS.—Not open to graduate students. 3 s.h.

## BUSINESS ADMINISTRATION AND ACCOUNTING

## A. ACCOUNTANCY

57-58. PRINCIPLES OF ACCOUNTING.—6 s.h.

STAFF

60. GENERAL ACCOUNTING.—This course is required of economic majors who do not take Course 57-58. It must be taken in the sophomore or junior year. Students may not receive credit for both Course 60 and Course 57-58. 3 s.h.

PROFESSOR DE VYVER; ASSOCIATE PROFESSOR LANDON;  
ASSISTANT PROFESSOR DICKENS

171-172. ADVANCED ACCOUNTING.—Open to students who have completed Economics 57-58. 6 s.h.  
ASSOCIATE PROFESSORS SHIELDS AND MANN

173-174. AUDITING, THEORY AND PRACTICE.—Prerequisite: Economics 171-172 and the permission of the department 6 s.h. ASSOCIATE PROFESSOR MANN

175-176. C. P. A. REVIEW.—Prerequisite: Economics 171-172 and permission of the department. 6 s.h. PROFESSOR BLACK

177. INCOME TAX ACCOUNTING.—Prerequisite: Economics 171-172 or permission of the instructor. 3 s.h. ASSOCIATE PROFESSOR SHIELDS

178. ACCOUNTING SYSTEMS.—Prerequisite: Economics 171-172 and the permission of the department. 3 s.h. ASSISTANT PROFESSOR DICKENS

180. GOVERNMENT ACCOUNTING.—Prerequisite: Economics 57-58 and permission of the instructor. 3 s.h. ASSOCIATE PROFESSOR SHIELDS

275-276. ADVANCED INDUSTRIAL ACCOUNTING AND MANAGEMENT.—Prerequisite: Economics 171-172 and permission of the department. 6 s.h.  
PROFESSOR BLACK

## B. COMMERCE AND INDUSTRY

11. ECONOMIC GEOGRAPHY.—Offered both semesters. 3 s.h.

ASSOCIATE PROFESSOR LEMERT

105. INDUSTRIAL MANAGEMENT.—Offered both semesters. 3 s.h.

ASSOCIATE PROFESSOR LANDON; MR. WALTER

109. THE ECONOMIC GEOGRAPHY OF LATIN AMERICA.—3 s.h.

ASSOCIATE PROFESSOR LEMERT

115. FUNDAMENTALS OF GEOGRAPHY.—3 s.h. ASSOCIATE PROFESSOR LEMERT

116. PRINCIPLES OF ECONOMIC GEOGRAPHY.—Prerequisite: Economics 115. 3 s.h. ASSOCIATE PROFESSOR LEMERT

118. ECONOMIC GEOGRAPHY OF THE SOUTH.—3 s.h.

ASSOCIATE PROFESSOR LEMERT

120. ECONOMIC GEOGRAPHY OF THE PACIFIC.—3 s.h.

ASSOCIATE PROFESSOR LEMERT

143. CORPORATION FINANCE.—Though not a prerequisite, Economics 57-58, Principles of Accounting, or Economics 60, General Accounting, are recommended to students electing this course. Offered both semesters. 3 s.h.

ASSOCIATE PROFESSOR JOERG

144. INVESTMENT.—Prerequisites: Economics 57-58 or 60, and 143. 3 s.h.

ASSOCIATE PROFESSOR JOERG

158. INSURANCE.—Offered both semesters. 3 sh. ASSOCIATE PROFESSOR SAVILLE

168. MARKETING.—3 s.h. ASSOCIATE PROFESSOR LANDON

181-182. BUSINESS LAW.—For Seniors. 6 s.h. ASSISTANT PROFESSOR DICKENS

184. COMMERCIAL LAW FOR ACCOUNTANTS.—Students are admitted to the course by permission of the instructor. For seniors. 3 s.h. PROFESSOR BLACK

188. PERSONNEL MANAGEMENT.—Prerequisite: Economics 155. 3 s.h.

PROFESSOR DE VYVER

## DEPARTMENTAL MAJOR

*Prerequisites:* Mathematics 5, Economics 51-52.

*Major Requirements:*

1. Number of hours needed: 24 hours in addition to Economics 51-52.

2. Required Courses:

A. Economics 138.

Economics 153.

B. Six hours from the following courses:

Economics 187. Public Finance.

Economics 199. Economic Analysis.

Economics 204. Advanced Money and Banking.

Economics 215. Economic Systems.

Economics 216. Economic Functions of the State.

Economics 217. Population Problems.

Economics 218. Business Cycles.

Economics 231. Economic History of Europe.

Economics 234. Federal Finance.

Economics 245. Modern Industrialism.

Economics 256. Labor Legislation and Social Insurance.

Economics 265. International Trade.

C. 12 hours in Economics, not Business Administration.

Students majoring in Economics are restricted by the general Faculty Regulation which limits course work in Economics and Business Administration to 54 semester hours with not over 36 semester hours in either of the department's subdivisions, Economics and Business Administration.

## RELATED WORK

1. Number of hours needed: 18 hours.

2. Required courses: Economics 60 or 57-58, Principles of Accounting.

3. Departments in which related work is usually taken: Mathematics, psychology, the social sciences and Business Administration. In special cases courses taken in other departments may be counted as related work with the approval of the department and the dean.

## EDUCATION

PROFESSOR CARTWRIGHT, CHAIRMAN; ASSOCIATE PROFESSOR EASLEY, DIRECTOR OF UNDERGRADUATE STUDIES; PROFESSORS BOLMEIER, CARR, CHILDS, AND NAHM; ASSOCIATE PROFESSORS RUDISILL, STUMPF AND WEITZ; ASSISTANT PROFESSORS INGLES, MASSEY, MCLENDON, PETTY, AND RAPPAPORT; DR. ADAMS;  
AND ASSISTANTS

Courses in the Department of Education are designed for two groups of students: (1) students with teaching experience or others who have definitely chosen teaching as their life-work, and (2) students who desire to study the school as an outstanding social institution. The courses listed in Nursing Education are for students preparing to teach in schools of nursing.

Students who do not expect to teach but merely desire an understanding of the school as part of a liberal education are advised to elect such courses as 54, 84, 88, and 105 for their introductory work in the Department and then to elect further work in accordance with their special interests. Students who expect to teach in the public schools should plan their courses in accordance with the general regulations as stated in the section on Requirement for Degrees. *All prospective teachers must enroll in courses 84 and 88, preferably before their junior year. They are then required to complete courses 103 and 118 before taking either 101-102 or 115-116 in their senior year.*

1. ORIENTATION IN STUDY AND STUDY HABITS.—*Either semester.* 3 s.h.  
DR. ADAMS

5. DEVELOPMENTAL READING.—3 s.h.

ASSOCIATE PROFESSOR RUDISILL



84. SOCIAL FOUNDATIONS OF EDUCATION.—*Either semester.* 3 s.h.

PROFESSOR CARTWRIGHT; ASSOCIATE PROFESSOR STUMPF AND  
ASSISTANT PROFESSOR McLENDON

NOTE: Courses 84, 88, 103, and 118 constitute a sequence of 12 hours in Education required of all prospective teachers. Students who intend to teach in the elementary school should confer with Professor Carr, and students who intend to teach in the secondary school should confer with Professor Childs, in order to work this sequence into their schedules. See courses under Nursing Education for modified sequence of courses for students preparing to teach in schools of nursing.

## 88. EDUCATIONAL PSYCHOLOGY: LEARNING AND MEASUREMENT.—

*Either semester.* 3 s.h.

ASSOCIATE PROFESSORS EASLEY AND RUDISILL,  
AND ASSISTANT PROFESSOR PETTY

See note following course 84.

101-102. ELEMENTARY EDUCATION: PRINCIPLES AND PRACTICE.—*For*

*seniors only.* 8 s.h.

PROFESSOR CARR AND ASSISTANT PROFESSOR PETTY

103. ORGANIZATION AND MANAGEMENT OF THE SCHOOL.—*Either*

*semester.* 3 s.h.

PROFESSOR BOLMEIER AND ASSISTANT

See note following course 84.

## 105. INTRODUCTION TO EDUCATIONAL SOCIOLOGY.—3 s.h.

[Not offered in 1953-54]

PROFESSOR CHILDS

## 115-116. SECONDARY EDUCATION: PRINCIPLES AND PRACTICE.—8 s.h.

ASSISTANT PROFESSOR McLENDON AND ASSISTANTS

## 118. EDUCATIONAL PSYCHOLOGY: PSYCHOLOGICAL DEVELOPMENT.—

Prerequisite: three semester hours in psychology or educational psychology. *Either semester.* 3 s.h.

ASSOCIATE PROFESSOR EASLEY AND DR. ADAMS

See note following course 84.

## 142. CHILDREN'S LITERATURE.—3 s.h.

PROFESSOR CARR AND ASSOCIATE PROFESSOR RUDISILL

## 161. INTEGRATED ART IN THE PUBLIC SCHOOL.—3 s.h.

MR. BRODERSON

## 162. INDUSTRIAL ART IN THE PUBLIC SCHOOL.—3 s.h.

MR. BRODERSON

176. MATERIALS AND METHODS IN HIGH-SCHOOL SCIENCE.—Prerequisite: at least 18 hours of science in college. 3 s.h.

## 201. TEACHING AND SUPERVISION OF ARITHMETIC.—3 s.h.

ASSISTANT PROFESSOR PETTY

203. PRINCIPLES OF SCHOOL ADMINISTRATION.—Prerequisite: six semester hours in education. 3 s.h.

PROFESSOR BOLMEIER

## 205. CURRICULUM PROBLEMS IN SECONDARY EDUCATION.—3 s.h.

PROFESSOR CHILDS

206. SOCIOLOGICAL FOUNDATIONS OF THE SECONDARY SCHOOL SUBJECTS.—Prerequisite: general sociology or approved work in education, including course 105. 3 s.h.

PROFESSOR CHILDS

## 207. TECHNIQUE OF TEACHING.—3 s.h.

[Not offered in 1953-54]

PROFESSOR CARR

208A. MENTAL TESTS AND APPLICATIONS.—Prerequisite: course 258 or six semester hours of other work in educational psychology or psychology. 3 s.h.

ASSOCIATE PROFESSOR EASLEY

## 208B. MENTAL TESTS AND APPLICATIONS.—2 s.h.

ASSOCIATE PROFESSOR EASLEY

## 209. STATISTICAL METHODS APPLIED TO EDUCATION.—3 s.h.

ASSOCIATE PROFESSOR EASLEY

## 212. PSYCHOLOGY OF THE ELEMENTARY SCHOOL SUBJECTS.—3 s.h.

PROFESSOR CARR

213. PROBLEMS IN THE ORGANIZATION AND ADMINISTRATION OF THE ELEMENTARY SCHOOL.—3 s.h.

214. HISTORY OF EDUCATION IN THE UNITED STATES.—3 s.h.

215. EDUCATIONAL AND VOCATIONAL GUIDANCE.—Prerequisite: 12 semester hours in the Department, including course 105 or course 206. 3 s.h.

[Not offered in 1953-54] PROFESSOR CHILDS

216. PSYCHOLOGICAL PRINCIPLES OF SECONDARY EDUCATION.—3 s.h.

[Not offered in 1953-54] PROFESSOR CHILDS

222. THE CURRICULUM AND MATERIALS OF THE ELEMENTARY GRADES.—3 s.h.

PROFESSOR CARR

224. TEACHING THE SOCIAL STUDIES IN ELEMENTARY SCHOOLS.—3 s.h.

PROFESSOR CARTWRIGHT

225. THE TEACHING OF HISTORY AND THE SOCIAL STUDIES.—3 s.h.

PROFESSOR CARTWRIGHT

226. TEACHING READING IN THE ELEMENTARY SCHOOL.—3 s.h.

ASSOCIATE PROFESSOR RUDISILL

227. THE PSYCHOLOGY OF LEARNING: PROBLEMS.—3 s.h.

[Not offered in 1953-54] ASSOCIATE PROFESSOR EASLEY

232. SUPERVISION OF INSTRUCTION.—3 s.h.

PROFESSOR CARR

234. SECONDARY-SCHOOL ORGANIZATION AND ADMINISTRATION.—3 s.h.

PROFESSOR BOLMEIER

236. TEACHING READING IN THE SECONDARY SCHOOL.—3 s.h.

ASSOCIATE PROFESSOR RUDISILL

253. LEGAL PHASES OF SCHOOL ADMINISTRATION.—3 s.h.

PROFESSOR BOLMEIER

255. GUIDANCE FUNCTIONS OF THE CLASSROOM TEACHER.—Prerequisites: twelve hours in either education or psychology, or a combination of the two. 3 s.h.

ASSOCIATE PROFESSOR WEITZ

258. EDUCATIONAL MEASUREMENTS.—Prerequisite: 12 semester hours in the Department, including a course in educational psychology. 3 s.h.

ASSOCIATE PROFESSOR WEITZ

264. RECENT MOVEMENTS IN AMERICAN EDUCATION.—3 s.h.

[Not offered in 1953-54]

290. ADMINISTRATION OF SCHOOL PROPERTY.—3 s.h.

ASSOCIATE PROFESSOR STUMPF

### NURSING EDUCATION

Students preparing for administrative, teaching, or supervisory positions in schools of nursing must take, in addition to other courses, substantially the same basic program of work in Education as do prospective secondary school teachers, namely, courses 84, 88, 103, 115-116, and 118. Course 101N below is substituted for course 103 in this program. Courses 84N and 115N-116N are sections of courses 84 and 115-116, respectively, designed especially for nurses.

84N. SOCIAL FOUNDATIONS OF NURSING EDUCATION.—3 s.h.

ASSISTANT PROFESSOR RAPPAPORT

101N. THE CURRICULUM IN THE SCHOOL OF NURSING.—3 s.h.

ASSISTANT PROFESSOR INGLES

115N-116N. NURSING EDUCATION: PRINCIPLES AND PRACTICE.—8 s.h.

ASSISTANT PROFESSOR RAPPAPORT

[Not open to students who have had course 115-116.]

117N. COMMUNITY NURSING SERVICE.—3 s.h.

ASSISTANT PROFESSOR MASSEY

- 120N. NURSING EDUCATION: PROBLEMS IN NURSING CARE.—3 s.h.  
ASSISTANT PROFESSORS INGLES AND ZUKOWSKI
- 124N. NURSING EDUCATION: TEACHING OF THE NURSING ARTS.—  
3 s.h. STAFF
- 130N. PSYCHOSOMATIC NURSING.—4 s.h. ASSISTANT PROFESSOR ZUKOWSKI
- 131N-132N. PSYCHIATRY AND PSYCHIATRIC NURSING.—8 s.h.  
ASSISTANT PROFESSOR ZUKOWSKI
- 133N. SEMINAR IN PSYCHIATRIC NURSING.—3 s.h.  
ASSISTANT PROFESSOR ZUKOWSKI
- 134N-135N. ADVANCED MEDICAL AND SURGICAL NURSING.—8 s.h.  
ASSISTANT PROFESSOR INGLES
- 136N. SEMINAR IN MEDICAL OR SURGICAL SPECIALTY.—3 s.h.  
ASSISTANT PROFESSOR INGLES
- 192N. PRINCIPLES AND METHODS OF TEACHING IN SCHOOLS OF  
NURSING.—3 s.h. ASSISTANT PROFESSOR RAPPAPORT
- 193N. WARD ADMINISTRATION AND TEACHING.—3 s.h.  
ASSISTANT PROFESSOR INGLES
- 195N. PERSONNEL WORK IN SCHOOLS OF NURSING.—3 s.h.  
ASSISTANT PROFESSOR JOHNSTON

## DEPARTMENTAL MAJOR

*Major Requirements:* 1. Number of hours needed; 24 hours in the Department.  
2. Required courses: 84, 88, 103, 118. 3. Recommended courses: for elementary  
teachers, Education 101-102, 142. For secondary teachers, Education 115-116 and  
materials and methods in teaching of related work.

*Related Work:* Sufficient work in subjects to be taught to meet certification re-  
quirements in state in which student intends to teach.

## MATERIALS AND METHODS COURSES

Certain courses concerned with materials and methods in teaching the various  
subjects in the public school curriculum are listed in the proper subject matter  
department. These courses are intended to give credit on teaching certificates and  
are recommended by the Department of Education for such credit.

## ENGLISH

PROFESSOR IRVING, CHAIRMAN; ASSOCIATE PROFESSOR BEVINGTON, DIRECTOR OF UNDER-  
GRADUATE STUDIES; ASSOCIATE PROFESSOR BOWMAN, SUPERVISOR OF FRESHMAN INSTRU-  
CTION; ASSISTANT PROFESSOR HARWELL, ACTING SUPERVISOR OF FRESHMAN INSTRU-  
CTION; PROFESSORS BAUM, BLACKBURN, BOYCE, BRINKLEY, GILBERT, GOHDES,  
HUBBELL, SANDERS, AND WARD; VISITING PROFESSOR ERDMAN; ASSOCIATE  
PROFESSORS MITCHELL, PATTON, AND REARDON; ASSISTANT PROFESSORS  
BEVINGTON, BUDD, HARWELL, JORDAN, POTEAT, SCHWERMAN,  
SUGDEN, WETHERBY, WHITE, AND WILLIAMS; DRs. CHURCH,  
FRASER, REICHARD, AND SMITH; MESSRS. BOWERS,  
GRAVES, JOHNSON, LANE, LARKIN,  
MICHALAK, AND SMITH

## L. ENGLISH FUNDAMENTALS.—3 s.h.

ASSISTANT PROFESSOR JORDAN; MESSRS. BOWERS, JOHNSON, AND LANE

## 1-2. ENGLISH COMPOSITION.—6 s.h.

ASSOCIATE PROFESSORS BEVINGTON, BOWMAN, MITCHELL, AND PATTON; ASSISTANT  
PROFESSORS BEVINGTON, BUDD, HARWELL, JORDAN, POTEAT, SUGDEN, WHITE,  
AND WILLIAMS; DRs. CHURCH, FRASER, REICHARD, AND SMITH;  
MESSRS. BOWERS, JOHNSON, LANE, LARKIN, AND SMITH

## 33. WRITING LABORATORY.

ASSISTANT PROFESSORS HARWELL AND JORDAN

53. ENGLISH COMPOSITION.—3 s.h. ASSISTANT PROFESSOR JORDAN  
 65-66. ENGLISH COMPOSITION.—6 s.h. PROFESSOR SANDERS  
 E-93. ADVANCED COMPOSITION FOR ENGINEERS.—Prerequisite: English  
 1 and 2. 3 s.h. ASSISTANT PROFESSOR HARWELL  
 101-102. EXPOSITORY ENGLISH COMPOSITION.—6 s.h.  
 ASSOCIATE PROFESSOR MITCHELL  
 103-104. ENGLISH COMPOSITION.—Prerequisite for English 104: English 103.  
 6 s.h. PROFESSOR BLACKBURN  
 107-108. JOURNALISM.—6 s.h. ASSISTANT PROFESSOR SUGDEN  
 133. VERSE-WRITING.—3 s.h.  
 [Not offered in 1953-54]

## SPEECH AND DRAMA

106. PLAYWRITING.—6 s.h. ASSOCIATE PROFESSOR REARDON  
 118. PERSUASIVE SPEAKING.—Prerequisite: English 151 or consent of the  
 instructor. 3 s.h. ASSISTANT PROFESSOR WETHERBY  
 119. HISTORY OF THE THEATRE.—3 s.h. ASSOCIATE PROFESSOR REARDON  
 121. STAGECRAFT.—3 s.h.  
 ASSOCIATE PROFESSOR REARDON; MESSRS. GRAVES AND MICHALAK  
 122. PLAY PRODUCTION.—3 s.h. ASSOCIATE PROFESSOR REARDON;  
 ASSISTANT PROFESSORS SCHWERMEN AND WETHERBY  
 139. THE SPEAKING VOICE.—3 s.h.  
 [Offered both semesters]  
 150. ORAL INTERPRETATION OF LITERATURE.—3 s.h.  
 ASSISTANT PROFESSOR SCHWERMEN  
 151. ESSENTIALS OF PUBLIC SPEAKING.—3 s.h.  
 ASSOCIATE PROFESSOR REARDON; ASSISTANT PROFESSORS SCHWERMEN,  
 AND WETHERBY; MESSRS. GRAVES AND MICHALAK  
 [Offered both semesters]  
 152. ARGUMENTATION.—Prerequisite: English 151 or consent of the in-  
 structor. 3 s.h. ASSISTANT PROFESSOR WETHERBY  
 [Offered in the fall semester]  
 171, 172. RADIO BROADCASTING.—6 s.h. ASSISTANT PROFESSOR WETHERBY

## ENGLISH AND AMERICAN LITERATURE AND LANGUAGE

- 55, 56. REPRESENTATIVE WRITERS.—6 s.h.  
 PROFESSORS BLACKBURN, BOYCE, AND SANDERS; ASSOCIATE PROFESSORS  
 BEVINGTON, BOWMAN, MITCHELL, AND PATTON; ASSISTANT PROFESSORS  
 BEVINGTON, POTAT, SUGDEN, AND WILLIAMS; DRs. CHURCH, FRASER,  
 REICHARD, AND SMITH; MESSRS. BOWERS AND LANE  
 111, 112. EIGHTEENTH-CENTURY LITERATURE.—6 s.h. PROFESSOR BOYCE  
 117. MILTON.—3 s.h. PROFESSOR BRINKLEY  
 123, 124. SHAKESPEARE.—6 s.h.  
 PROFESSORS BOYCE AND WARD; ASSOCIATE PROFESSOR  
 BOWMAN; ASSISTANT PROFESSOR WILLIAMS  
 125, 126. ENGLISH LITERATURE, 1789-1832.—6 s.h.  
 ASSOCIATE PROFESSOR PATTON AND ASSISTANT PROFESSOR WHITE  
 129, 130. ENGLISH NOVEL.—6 s.h. ASSOCIATE PROFESSOR MITCHELL  
 131, 132. ENGLISH LITERATURE, 1832-1900.—6 s.h.  
 PROFESSOR SANDERS AND ASSOCIATE PROFESSOR BEVINGTON

134. CONTEMPORARY POETRY.—3 s.h. ASSISTANT PROFESSOR BEVINGTON
- 137, 138. AMERICAN LITERATURE.—6 s.h.  
PROFESSORS HUBBELL AND GOHDES; ASSISTANT PROFESSOR BUDD
142. MATERIALS AND METHODS OF TEACHING HIGH-SCHOOL ENGLISH.—3 s.h. ASSISTANT PROFESSOR JORDAN  
[Offered in the fall semester]
- 143, 144. ENGLISH LITERATURE: ELIZABETHAN AND EARLY SEVENTEENTH CENTURY.—6 s.h. PROFESSOR BLACKBURN
- 153, 154. COMPARATIVE LITERATURE.—6 s.h. PROFESSOR IRVING
155. MODERN EUROPEAN DRAMA.—3 s.h. ASSISTANT PROFESSOR WHITE
156. MODERN BRITISH AND AMERICAN DRAMA.—3 s.h. ASSISTANT PROFESSOR WHITE
158. CONTEMPORARY FICTION.—3 s.h.
160. ENGLISH LITERARY BIOGRAPHY.—3 s.h. PROFESSOR SANDERS
- 161, 162. MODERN ENGLISH AND ITS BACKGROUNDS.—6 s.h.
165. AMERICAN FICTION.—3 s.h. ASSISTANT PROFESSOR BUDD
166. AMERICAN FICTION.—3 s.h. ASSISTANT PROFESSOR BUDD

## FOR SENIORS AND GRADUATES

- 201-202. ANGLO-SAXON.—6 s.h. PROFESSOR BAUM  
[Not offered in 1953-54]
- 203-204. CHAUCER.—6 s.h. PROFESSOR BAUM
- 205-206. MIDDLE ENGLISH.—6 s.h. PROFESSOR BAUM
- 215-216. ELIZABETHAN DRAMA.—6 s.h. PROFESSOR GILBERT
217. MILTON.—3 s.h. PROFESSOR GILBERT
218. SPENSER.—3 s.h. PROFESSOR GILBERT  
[Not offered in 1953-54]
- 219-220. THE EIGHTEENTH CENTURY.—6 s.h. PROFESSOR IRVING
- 221-222. ENGLISH LITERATURE OF THE EARLY NINETEENTH CENTURY.—6 s.h. VISITING PROFESSOR ERDMAN
- 223-224. ENGLISH LITERATURE OF THE LATER NINETEENTH CENTURY.—6 s.h. PROFESSOR BAUM  
[Not offered in 1953-54]
227. LITERARY CRITICISM.—3 s.h. PROFESSOR GILBERT
- 229-230. AMERICAN LITERATURE, 1800-1870.—6 s.h. PROFESSOR HUBBELL
232. WHITMAN.—3 s.h. PROFESSOR GOHDES  
[Offered in the fall semester]
- 233-234. AMERICAN LITERATURE SINCE 1870.—6 s.h. PROFESSOR GOHDES
237. ENGLISH DRAMA, 1642-1800.—3 s.h. ASSOCIATE PROFESSOR WARD  
[Not offered in 1953-54]
239. SHAKESPEARE.—3 s.h. PROFESSOR GILBERT  
[Not offered in 1953-54]
241. STUDIES IN DRYDEN.—3 s.h. ASSOCIATE PROFESSOR WARD  
[Not offered in 1953-54]
245. THE EIGHTEENTH-CENTURY NOVEL.—3 s.h. PROFESSOR BOYCE  
[Offered in the spring semester]
- 251-252. ENGLISH LITERATURE IN THE SEVENTEENTH CENTURY.—6 s.h. ASSOCIATE PROFESSOR WARD



269-270. SOUTHERN LITERATURE.—6 s.h.  
[269 offered in the second semester]

PROFESSOR HUBBELL

### DEPARTMENTAL MAJOR

*Prerequisite:* English 1 and 2.

*Major Requirements:* Twenty-four semester hours in English and American literature including the following:

1. Six hours in English 55-56.
2. Six hours in one of five designated period courses (143-144, 111-112, 125-126, 131-132, 137-138).
3. Three hours in one of the major authors, Chaucer, Shakespeare, or Milton (203-204, 123, 124, 117).
4. Nine hours, distributed as follows:
  - (a) Three hours of English literature before 1800. Students who have chosen 143-144 or 111-112 for the period course may substitute any three-hour course approved by their adviser.
  - (b) Three hours of English literature after 1800. Students who have chosen 125-126 or 131-132 for the period course may substitute any three-hour course approved by their adviser.
  - (c) Three hours of American literature. Students who have chosen 137-138 for the period course may substitute any three-hour course approved by their adviser.

*Related work:* Eighteen semester hours, which may include appropriate courses in history, aesthetics, art, music, languages, literature in translation, philosophy, or courses in composition, dramatics, and speech. Related work must be taken in at least two departments.

*Electives:* Students may use 12 hours of their free electives for additional work in English and American literature. The maximum credit in such courses may not exceed 36 hours. A total of 54 semester hours' credit in the department is allowed. Students who are looking forward to graduate work should take as many of the period courses as possible. No more than five seniors may be admitted to any course on the 200 level.

### FORESTRY

Students without a Bachelor's degree who are preparing for work in forestry as a profession should take the courses outlined under the Academic-Forestry Combination. However, with the consent of the instructor in charge, certain forestry courses may be elected by students in other curricula provided they have had adequate preparation (see *Bulletin of the School of Forestry*).

Members of the sophomore, junior, and senior classes, whether or not registered in the Academic-Forestry Combination, may elect the following course:

52. PRINCIPLES OF FORESTRY.—2 s.h.

ASSISTANT PROFESSOR STOLTENBERG

### GEOLOGY

PROFESSOR BERRY, CHAIRMAN, DIRECTOR OF UNDERGRADUATE STUDIES AND SUPERVISOR OF FRESHMAN INSTRUCTION; MESSRS. BOWMAN, BUCKNER, AND HERON

51. GENERAL GEOLOGY.—4 s.h.

MR. HERON AND STAFF

52. GENERAL GEOLOGY.—Prerequisite: Geology 51. 4 s.h.

MR. HERON AND STAFF

53. STRUCTURAL GEOLOGY.—Prerequisite: Geology 51, 52. 3 s.h. MR. HERON

58. GEOMORPHOLOGY.—4 s.h.

PROFESSOR BERRY

101-102. MINERALOGY.—Prerequisite: Chemistry 1-2 (can be taken concurrently). 8 s.h.

PROFESSOR BERRY

151. ECONOMIC GEOLOGY.—Prerequisite: Geology 101-102. 4 s.h.

PROFESSOR BERRY

152. INTRODUCTORY PALEONTOLOGY.—Prerequisite: Geology 52, 52, and Zoology 2. 4 s.h.

PROFESSOR BERRY

164. INTRODUCTION TO GEOLOGIC MAPPING.—Prerequisites: Geology 51, 52, 55. 151. 3 s.h.

MR. HERON

### DEPARTMENTAL MAJOR

*Prerequisites:* Chemistry 1-2; Zoology 2, Geology 51, 52.

*Major Requirements:* 1. Number of hours needed, 30 s.h. 2. Required courses, Geology 55, 101-102, 151, 152, 164. 3. Recommended courses, Geology 58.

*Related Work:* 1. Number of hours needed for A.B., 12 s.h.; for B.S., 18 s.h. 2. Required courses, 1 year Mathematics. 3. Departments in which related work is usually taken, Chemistry, Economics 115-116, Mathematics, Physics, Sociology 111, Zoology, and General Engineering.

### GERMANIC LANGUAGES AND LITERATURE

PROFESSOR VOLLMER, CHAIRMAN; ASSOCIATE PROFESSOR MAXWELL, DIRECTOR OF UNDERGRADUATE STUDIES; ASSOCIATE PROFESSOR WILSON, SUPERVISOR OF FRESHMAN INSTRUCTION; ASSOCIATE PROFESSOR SHEARS; MR. YATES

*All courses except Elementary and Intermediate German may be taken for one semester only, when circumstances make it advisable.*

1-2. ELEMENTARY GERMAN.—6 s.h. ASSOCIATE PROFESSOR MAXWELL AND STAFF

3-4. INTERMEDIATE GERMAN.—6 s.h. ASSOCIATE PROFESSOR WILSON AND STAFF

51-52. INTRODUCTION TO GERMAN LITERATURE.—6 s.h.

ASSOCIATE PROFESSOR SHEARS AND STAFF

*For courses in the 100 and 200 group which will be offered in 1952-53, please consult list furnished by Dean's office before registration.*

107, 108. SCIENTIFIC GERMAN.—6 s.h.

ASSOCIATE PROFESSORS MAXWELL AND WILSON

109, 110. GERMAN PROSE FICTION.—6 s.h.

ASSOCIATE PROFESSOR WILSON

111, 112. INTRODUCTION TO THE CLASSIC DRAMA.—6 s.h.

ASSOCIATE PROFESSOR WILSON

115, 116. GERMAN DRAMA OF THE NINETEENTH CENTURY.—6 s.h.

ASSOCIATE PROFESSOR WILSON

117, 118. GERMAN CONVERSATION.—6 s.h.

PROFESSOR VOLLMER; ASSOCIATE PROFESSORS MAXWELL AND SHEARS

119, 120. GERMAN LITERATURE IN ENGLISH TRANSLATION.—6 s.h.

PROFESSOR VOLLMER

121, 122. SCHILLER.—6 s.h.

ASSOCIATE PROFESSOR MAXWELL

123, 124. MODERN GERMAN SHORT STORY.—6 s.h.

ASSOCIATE PROFESSOR SHEARS

125, 126. CONTEMPORARY GERMAN LITERATURE.—6 s.h.

ASSOCIATE PROFESSOR SHEARS

127, 128. SURVEY OF MODERN GERMAN LITERATURE.—6 s.h.

PROFESSOR VOLLMER

131, 132. INTRODUCTION TO GOETHE.—6 s.h.

ASSOCIATE PROFESSOR MAXWELL

201, 202. GOETHE.—6 s.h.

203, 204. EIGHTEENTH CENTURY.—6 s.h.

PROFESSOR VOLLMER

205, 206. MIDDLE HIGH GERMAN.—6 s.h.

PROFESSOR VOLLMER

- 207, 208. GERMAN ROMANTICISM.—6 s.h. PROFESSOR VOLLMER  
 209, 210. KLEIST, GRILLPARZER, AND HEBBEL.—6 s.h.  
 211, 212. HEINRICH HEINE AND HIS TIME.—6 s.h. PROFESSOR VOLLMER  
 213, 214. LITERATURE OF THE EMPIRE, 1871-1914. 6 s.h.  
 ASSOCIATE PROFESSOR SHEARS

## DEPARTMENTAL MAJOR

1. *Prerequisites:* German 1-2 and 3-4.  
 2. *Major Requirements:* Twenty-four semester hours in the German Department. Twelve of these must be selected from the 200 courses. The remaining twelve may be selected from German 51-52 and any courses in the 100 group except 119-120.  
 3. *Related Work:* Eighteen semester hours, chosen from the Humanities with the approval of the German Department.

## GOVERNMENT

See courses listed under Political Science.

## GREEK

ASSOCIATE PROFESSOR TRUESDALE, DIRECTOR OF UNDERGRADUATE STUDIES; ASSOCIATE PROFESSOR ROSE, SUPERVISOR OF FRESHMAN INSTRUCTION;  
 ASSISTANT PROFESSOR WAY

Courses 15, 121, 122, 131, 141, 142 are entirely in English and require no knowledge of the Greek language. The purpose in offering them is to give a wider circle of students some conception of the debt which modern civilization owes to the Greeks.

- 1-2. COURSE FOR BEGINNERS.—6 s.h. ASSOCIATE PROFESSOR TRUESDALE  
 15. MYTHOLOGY.—3 s.h. ASSOCIATE PROFESSOR TRUESDALE AND ASSISTANT PROFESSOR WAY  
 53-54. ZENOPHON.—*Anabasis*, Books I-IV. 6 s.h. ASSOCIATE PROFESSOR ROSE  
 105-106. HOMER.—6 s.h. ASSOCIATE PROFESSOR TRUESDALE  
 107-108. EURIPIDES.—SOPHOCLES.—ARISTOPHANES.—6 s.h.  
 ASSISTANT PROFESSOR WAY  
 115-116. SIGHT READING IN GREEK.—4 s.h. ASSOCIATE PROFESSOR TRUESDALE  
 117-118. GREEK PROSE COMPOSITION.—3 s.h. ASSOCIATE PROFESSOR ROSE  
 121, 122. GREEK LITERATURE IN ENGLISH TRANSLATION.—6 s.h.  
 ASSOCIATE PROFESSORS ROSE AND TRUESDALE

*Students may elect course 122, whether they have taken course 121 or not.*

131. HISTORY OF GREECE.—3 s.h. ASSISTANT PROFESSOR WAY  
 141, 142. GREEK ART.—6 s.h. ASSISTANT PROFESSOR WAY  
 201-202. GREEK TRAGEDY.—6 s.h. ASSOCIATE PROFESSOR TRUESDALE  
 203-204. HOMER—*Odyssey*. PINDAR AND BACCHYLIDES. 6 s.h.  
 ASSOCIATE PROFESSOR TRUESDALE

- 207-208. GREEK ORATORS.—6 s.h. ASSISTANT PROFESSOR WAY  
 209-210. PLATO.—6 s.h. ASSISTANT PROFESSOR WAY

*Only one of the year-courses for seniors and graduates (201-210), listed above, is offered each year.*

243. ATHENIAN TOPOGRAPHY.—3 s.h. ASSISTANT PROFESSOR WAY

244. GREEK EPIGRAPHY.—3 s.h. ASSISTANT PROFESSOR WAY  
 245. GREEK DIALECTS.—3 s.h. ASSISTANT PROFESSOR WAY  
 246. GREEK HISTORICAL INSCRIPTIONS.—3 s.h. ASSISTANT PROFESSOR WAY  
 247-248. GREEK ARCHEOLOGY.—6 s.h. ASSISTANT PROFESSOR WAY

*Of the courses numbered from 243 to 248 only two semester-courses are offered each year.*

### DEPARTMENTAL MAJOR

*Prerequisite:* Greek 1-2.

*Major Requirements:* A candidate for a major in Greek must complete 24 semester hours, including the following courses: Greek 53-54, 105-106, 107-108, 117-118, and 131.

*Related Work:* Eighteen semester hours selected from at least two other departments subject to the approval of the Greek Department. Appropriate courses are chosen usually in Latin, Philosophy, Art, and English.

*Graduates of Duke University may attend the American School of Classical Studies at Athens, Greece, without charge for tuition and are eligible to compete for the fellowships that are offered annually by the School. These consist of two fellowships in Greek archaeology and one in the language, literature, and history of ancient Greece, each with a stipend of \$2,000. They are awarded mainly on the basis of examinations held in the beginning of February of each year.*

## HEALTH AND PHYSICAL EDUCATION

### TRINITY COLLEGE AND THE COLLEGE OF ENGINEERING

MR. CAMERON, DIRECTOR; PROFESSOR AYCOCK, DIRECTOR OF UNDERGRADUATE STUDIES AND SUPERVISOR OF FRESHMAN INSTRUCTION; ASSISTANT PROFESSORS BLY, FALCONE, HARRISON, MONTFORT, AND PERSONS; MESSRS. BRADLEY, COX, HENDRIX, AND SORENSEN

### REQUIRED PHYSICAL EDUCATION FOR MEN

Four semesters of physical education are required for graduation. After a student has completed Physical Education 1 and 2, he may complete the requirement by electing and satisfactorily completing two courses from the following individual and team sports: 51. Apparatus-Tumbling; 52. Badminton; 53. Basketball-Handball; 54. Boxing-Wrestling; 55. Lacrosse-Soccer; 56. Swimming, advanced; 57. Tennis-Volleyball; 58. Golf.

### ELECTIVES IN PHYSICAL EDUCATION

Students in the High School Teaching Program may elect 15 semester hours from courses in physical education. Six semester hours may be elected from the courses listed under Special Methods in Physical Education and 9 semester hours may be elected from the courses listed under Theory and Practice in Physical Education.

These courses are arranged to meet the increasing demand for teachers who are qualified to coach and teach physical education. They should be selected with the advice of the Director of Undergraduate Studies in order to meet the needs of the individual.

### SPECIAL METHODS IN PHYSICAL EDUCATION

163. ATHLETIC COACHING IN SECONDARY SCHOOLS.—Prerequisites: courses 1 and 2. 3 s.h. MESSRS. CHAMBERS AND PARKER  
 164. ATHLETIC COACHING IN SECONDARY SCHOOLS.—Prerequisites: courses 1 and 2. 3 s.h. MR. CAMERON AND STAFF

### THEORY AND PRACTICE IN PHYSICAL EDUCATION

65. HISTORY AND PRINCIPLES OF PHYSICAL EDUCATION.—3 s.h. PROFESSOR AYCOCK  
 172. RECREATIONAL LEADERSHIP.—3 s.h. ASSISTANT PROFESSOR HARRISON

173. INDIVIDUAL GYMNASTICS.—3 s.h. PROFESSOR AYCOCK
182. THE ADMINISTRATION OF HEALTH AND PHYSICAL EDUCATION  
IN SECONDARY SCHOOLS.—3 s.h. ASSISTANT PROFESSOR HARRISON
187. SCHOOL PROGRAMS OF PHYSICAL EDUCATION.—3 s.h.  
ASSISTANT PROFESSOR HARRISON
190. PROTECTIVE PRACTICES IN PHYSICAL EDUCATION.—3 s.h.  
MR. CHAMBERS AND ASSISTANT PROFESSOR MONTFORT

## HEALTH EDUCATION

132. SCHOOL HEALTH PROBLEMS.—3 s.h. PROFESSOR AYCOCK

## WOMAN'S COLLEGE

PROFESSOR GROUT, CHAIRMAN AND DIRECTOR OF UNDERGRADUATE STUDIES; ASSOCIATE  
PROFESSOR BOOKHOUT, SUPERVISOR OF FRESHMAN INSTRUCTION IN PHYSICAL EDUCA-  
TION; ASSISTANT PROFESSOR UHRHANE, SUPERVISOR OF FRESHMAN INSTRUCTION IN  
HEALTH EDUCATION; ASSOCIATE PROFESSOR LEWIS; ASSISTANT PROFESSORS  
EDDY AND HOLTON; MISS DAVIS, MISS RIEBEL AND MISS WILLIAMS

## REQUIRED PHYSICAL EDUCATION FOR WOMEN

Four semester hours of physical education, to be completed in six semesters,  
are included in the 124 hours required for graduation.

Every student must take one semester ( $1\frac{1}{2}$  s.h.) of each of the following types  
of activity: individual or dual sport, dance, and swimming (if she is unable to  
pass the swimming test). The remaining work necessary to complete the require-  
ment may be elected from the activities offered by the Department. All required  
work should be completed by the end of the junior year.

## PHYSICAL EDUCATION THEORY

Students preparing to teach physical education and health on a full-time or  
part-time basis may receive academic credit for all courses listed below. Course  
107 is also open to students preparing for social group work and religious education.

Students in the Elementary School Teaching Program must take Physical Edu-  
cation 102 and Health Education 112.

All students may receive credit for Physical Education 105-106, 108, 114, and  
Health Education 41 and 62.

91. FIRST AID AND SAFETY IN PHYSICAL EDUCATION.—2 s.h.  
ASSOCIATE PROFESSOR BOOKHOUT
101. HISTORY AND PRINCIPLES OF PHYSICAL EDUCATION.—2 s.h.  
PROFESSOR GROUT
102. THE TEACHING OF PHYSICAL EDUCATION IN ELEMENTARY  
SCHOOLS.—3 s.h. ASSOCIATE PROFESSOR LEWIS
103. GAMES AND RHYTHMS FOR CHILDREN.—2 s.h.  
[Offered every other year alternating with P.E. 107.] ASSOCIATE PROFESSOR LEWIS
- 105-106. METHODS AND MATERIALS IN RECREATION.—6 s.h.  
ASSISTANT PROFESSOR HOLTON
107. THE TEACHING OF RHYTHMIC ACTIVITIES.—2 s.h. Miss WILLIAMS
108. PROBLEMS IN COMMUNITY RECREATION.—3 s.h.  
[Not offered in 1953-54]
113. MAMMALIAN ANATOMY.—Prerequisite: Zoology 1 and 2. 4 s.h.  
ASSOCIATE PROFESSOR BOOKHOUT
114. KINESIOLOGY.—Prerequisites: Zoology 1 and 2, and P.E. 113 or Zoology  
53. 3 s.h. ASSOCIATE PROFESSOR BOOKHOUT
116. KINESIOLOGY.—Prerequisite: Human Anatomy. 3 s.h.  
ASSOCIATE PROFESSOR BOOKHOUT



117. BODY MECHANICS AND INDIVIDUAL PHYSICAL EDUCATION.—  
3 s.h. ASSOCIATE PROFESSOR BOOKHOUT

119. ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION.—2 s.h.  
PROFESSOR GROUT

120. EVALUATION AND MEASUREMENT IN PHYSICAL EDUCATION.—  
2 s.h. MISS RIEBEL

181-182. METHODS AND MATERIALS IN PHYSICAL EDUCATION.—4 s.h.  
MISS RIEBEL

181-182. METHODS AND MATERIALS IN PHYSICAL EDUCATION.—  
4 s.h. ASSOCIATE PROFESSOR LEWIS AND STAFF

185-186. ADVANCED METHODS AND MATERIALS IN PHYSICAL EDUCATION.—4 s.h.  
ASSOCIATE PROFESSOR LEWIS AND STAFF

### HEALTH EDUCATION

41. PERSONAL HEALTH.—3 s.h. ASSISTANT PROFESSOR UHRHANE

62. COMMUNITY HEALTH PROBLEMS.—3 s.h.  
ASSISTANT PROFESSOR UHRHANE

111-112. SCHOOL HEALTH.—6 s.h. ASSISTANT PROFESSOR UHRHANE

### REQUIREMENTS FOR TEACHING HEALTH AND PHYSICAL EDUCATION IN PUBLIC SCHOOLS

The following requirements have been set up for students in the Teaching Program who wish to qualify as full-time or part-time teachers of Health and Physical Education. These requirements meet the standards of the North Carolina Department of Public Instruction for certification in Health and Physical Education and of most of the other states represented in the student body. Students preparing to teach in any state are advised to consult the department about specific requirements.

*Prerequisites:* Physical Education 91 and 101; Health Education 111 or 41; Zoology 1-2.

*Major Requirements:* 23 s.h. including Physical Education 103, 107, 114, 117, 119, 181-182, 185-186, and Health Education 112.

*Recommended Course:* Physical Education 120.

*Related Work:* 12 to 19 s.h. Of these hours 8 must be in anatomy and physiology (P.E. 113, Mammalian Anatomy and Zoology 151, Principles of Physiology). Of the remaining hours work done in Department of Education leading to teacher certification is acceptable. Courses in Chemistry, Zoology, Sociology, Psychology, Art and Music are recommended.

### HISTORY

PROFESSOR SYDNOR, CHAIRMAN; PROFESSOR HAMILTON, DIRECTOR OF UNDERGRADUATE STUDIES; ASSOCIATE PROFESSOR FERGUSON, SUPERVISOR OF FRESHMAN INSTRUCTION;

PROFESSORS CARROLL, CLYDE, CURTISS, LANNING, AND MANCHESTER; ASSOCIATE

PROFESSORS NELSON, PARKER, ROPP, WATSON, AND WOODY; ASSISTANT

PROFESSORS ACOMB, COLTON, HOLLEY, AND STEVENS; DR. DECONDE,

DR. DURDEN, AND MR. OLIVER

Courses 1-2 or 51-52 or E1-2 or an equivalent is a prerequisite for all other courses; course E1-2 is the prescribed course for students in the College of Engineering; courses 91 and 92 are prerequisite for all 100 and 200 courses in United States history. However, seniors with written permission from the instructor may take courses without the prerequisites. Sophomores who took only one semester of course 1-2 in the freshman year may be admitted to courses 91 and 92, 63, or 67-68, provided they made a grade of B or above on the semester taken. Courses

offered for seniors and graduates are limited to twenty-five students; juniors may not elect them without special permission from the Department and the Executive Committee of the Graduate Faculty. Sophomores must obtain permission of the instructor in order to be admitted to courses numbered above 100; students who are not fully qualified sophomores will not be admitted to these courses.

1, 2. HISTORICAL BACKGROUND OF THE WORLD TODAY.—6 s.h.

PROFESSOR HAMILTON; ASSOCIATE PROFESSORS FERGUSON, PARKER, AND ROPP;  
ASSISTANT PROFESSORS ACOMB AND COLTON; DR. DURDEN

EI-2. THE UNITED STATES IN THE WORLD TODAY.—6 s.h.

ASSISTANT PROFESSOR HOLLEY

51, 52. HISTORICAL BACKGROUND OF THE WORLD TODAY.—6 s.h.

PROFESSOR CURTISS; ASSOCIATE PROFESSOR ROPP; ASSISTANT  
PROFESSORS ACOMB AND COLTON; DR. DURDEN; MR. OLIVER

[Not open to freshmen or to students who have had course 1-2.]

63. NAVAL HISTORY AND ELEMENTARY STRATEGY.—3 s.h.

ASSOCIATE PROFESSOR ROPP

67-68. THE BACKGROUND OF MODERN EUROPEAN CIVILIZATION.—  
6 s.h.

ASSOCIATE PROFESSOR NELSON

91. THE DEVELOPMENT OF AMERICAN DEMOCRACY TO 1865.—3 s.h.

ASSOCIATE PROFESSOR WATSON; ASSISTANT PROFESSORS  
STEVENS AND HOLLEY

92. THE DEVELOPMENT OF AMERICAN DEMOCRACY, 1865 TO THE  
PRESENT.—3 s.h.

ASSOCIATE PROFESSOR WATSON; ASSISTANT PROFESSORS  
STEVENS AND HOLLEY

Courses 91 and 92 are intended both to serve as continuation courses in the study of history and to afford the student an opportunity to gain the understanding of the past of the United States essential for intelligent citizenship. These courses are prerequisite for all 100 and 200 courses in United States history. However, seniors with written permission from the instructor may take these courses without the prerequisites.

105-106. POLITICAL AND CONSTITUTIONAL HISTORY OF ENGLAND.—  
6 s.h.

PROFESSOR HAMILTON

*Students who have had course 123-124 may not receive credit for this course.*

107-108. SOCIAL AND CULTURAL HISTORY OF ENGLAND.—6 s.h.

ASSOCIATE PROFESSOR FERGUSON

*Sophomores who made an average grade of B or above on course 1-2 may be admitted to this course.*

113-114. AMERICA IN THE TWENTIETH CENTURY.—6 s.h.

ASSOCIATE PROFESSOR WATSON

115-116. THE AGE OF ABSOLUTE MONARCHY AND THE FRENCH REVOLU-  
TION.—6 s.h.

ASSISTANT PROFESSOR ACOMB

119-120. THE HISTORY OF THE LABOR MOVEMENT IN EUROPE.— 6s.h.

ASSISTANT PROFESSOR COLTON

121-122. THE FOREIGN RELATIONS OF THE UNITED STATES.—6 s.h.

DR. DECONDE

127. HISTORY OF LATIN AMERICA THROUGH THE FORMATION OF  
THE NATIONAL GOVERNMENTS.—3 s.h.

PROFESSOR LANNING

128. INTER-AMERICAN AFFAIRS.—3 s.h.

PROFESSOR LANNING

ANCIENT HISTORY.—GREEK 131—LATIN 131-132.

135-136. EUROPE IN THE TWENTIETH CENTURY.—6 s.h.

PROFESSOR CARROLL

- 141-142. THE FAR EAST FROM COMMODORE PERRY TO CHIANG KAI-SHEK.—6 s.h. PROFESSOR CLYDE  
 [Not offered in 1953-54]
- 153-154. THE HISTORY OF THE SOUTH.—6 s.h. PROFESSOR SYDNOR  
 [Not offered in 1953-54]
- 161-162. RUSSIA FROM IVAN THE TERRIBLE TO STALIN.—6 s.h. PROFESSOR CURTISS

## FOR SENIORS AND GRADUATES

- 203-204. THE UNITED STATES, 1850-1900.—6 s.h. ASSOCIATE PROFESSOR WOODY
- 205-206. THE UNITED STATES IN THE TWENTIETH CENTURY.—6 s.h. ASSOCIATE PROFESSOR WATSON
- 209-210. CONSTITUTIONAL HISTORY OF THE UNITED STATES, 1760 TO THE PRESENT.—6 s.h. ASSISTANT PROFESSOR STEVENS
- 215-216. THE FOREIGN POLICY AND DIPLOMACY OF THE UNITED STATES.—3 s.h. PROFESSOR CLYDE  
 [Not offered in 1953-54]
- 217-218. EUROPE SINCE 1870.—6 s.h. PROFESSOR CARROLL
- 221-222. THE AGE OF THE RENAISSANCE.—6 s.h. ASSOCIATE PROFESSOR NELSON
- 225-226. THE AGE OF THE REFORMATION.—6 s.h. ASSOCIATE PROFESSOR NELSON
- 227-228. EUROPE IN THE NINETEENTH CENTURY.—6 s.h. ASSOCIATE PROFESSOR PARKER  
 [Not offered in 1953-54]
230. THE PORTUGUESE EMPIRE AND THE RISE OF BRAZIL.—3 s.h. PROFESSOR MANCHESTER
- 231-232. THE HISPANIC COLONIES AND REPUBLICS IN AMERICA.—6 s.h. PROFESSOR LANNING
- 233-234. THE INSTITUTIONAL, CULTURAL, AND SOCIAL HISTORY OF HISPANIC AMERICA.—6 s.h. PROFESSOR LANNING  
 [Not offered in 1953-54]
- 241-242. THE FAR EAST.—6 s.h. PROFESSOR CLYDE  
 [Not offered in 1953-54]
- 243-244. THE UNITED STATES AND THE FAR EAST.—6 s.h. PROFESSOR CLYDE
- 245-246. WAR IN THE MODERN WORLD.—6 s.h. ASSOCIATE PROFESSOR ROPP
- 261-262. RUSSIA IN THE TWENTIETH CENTURY.—6 s.h. PROFESSOR CURTISS
- 263-264. AMERICAN COLONIAL HISTORY AND THE REVOLUTION, 1606-1783.—6 s.h. ASSOCIATE PROFESSOR WOODY  
 [Not offered in 1953-54]
- 267-268. THE TRANSITION FROM MEDIEVAL TO MODERN ENGLAND.—6 s.h. ASSOCIATE PROFESSOR FERGUSON
- 269-270. ENGLISH HISTORY FROM THE TUDOR PERIOD TOWARD THE PRESENT.—6 s.h. PROFESSOR HAMILTON

## DEPARTMENTAL MAJOR

*Prerequisites:* The Introductory Course in History (1-2 or 51-52).

*Major Requirements:* Students desiring to take a major in history are required to elect 24 semester hours in the Department, including six semester hours in the senior year from courses in the 200 group. Students desiring to take the more advanced courses in American history should elect courses 91 and 92 in the sophomore or junior year.

## COURSES APPROVED FOR RELATED WORK IN HISTORY

The number of courses refer to the descriptions in the 1950-51 catalogue.

Aesthetics

History of Art

History of Music

Economics, but *not* the courses listed under business administration except those in economic geography

Education, 84, 105, 206, 214, 225, 253, 264

English and American Literature, but *not* composition, speech, and drama

German, Greek, Latin, Russian, and the Romance Languages: the literature courses numbered 100 or above that are not primarily conversation or composition courses

Philosophy, except 48

Political Science

Psychology, 206 only

Religion courses approved to satisfy the requirement in religion for graduation

Sociology courses in group I, II, 243, 246; Group IV, V.

## LATIN AND ROMAN STUDIES

PROFESSOR ROGERS, CHAIRMAN AND DIRECTOR OF UNDERGRADUATE STUDIES; ASSOCIATE PROFESSOR ROSE, SUPERVISOR OF FRESHMAN INSTRUCTION; MR. DELHOMME

1-2. COURSE FOR BEGINNERS.—6 s.h. MR. DELHOMME

3. CICERO'S ORATIONS.—Prerequisite: two entrance units of Latin. 3 s.h.  
MR. DELHOMME

4. VERGIL'S *AENEID*.—3 s.h. MR. DELHOMME

51. LATIN PROSE.—3 s.h. THE STAFF

52. LATIN POETRY.—3 s.h. THE STAFF

57. SIGHT READING IN CLASSICAL LATIN.—1 s.h.  
ASSOCIATE PROFESSOR ROSE

58. SIGHT READING IN MEDIAEVAL LATIN.—Prerequisite: at least one of the following courses: Latin 3, 4, 51, 52, and 57, or an equivalent. 1 s.h.

ASSOCIATE PROFESSOR ROSE

65-66. LATIN PROSE COMPOSITION.—4 s.h. ASSOCIATE PROFESSOR ROSE

101. TACITUS.—3 s.h. PROFESSOR ROGERS

102. JUVENAL.—3 s.h. PROFESSOR ROGERS

103. CICERO.—3 s.h. PROFESSOR ROGERS OR ASSOCIATE PROFESSOR ROSE

104. LUCRETIUS.—3 s.h. PROFESSOR ROGERS OR ASSOCIATE PROFESSOR ROSE

109. MATERIALS AND METHODS.—Prerequisite: eighteen approved semester hours of college Latin, including courses 51-52, or equivalent courses. 3 s.h.

ASSOCIATE PROFESSOR ROSE

111, 112. ROMAN LITERATURE IN ENGLISH TRANSLATION.—6 s.h.  
ASSOCIATE PROFESSOR ROSE

113-114. ROMAN CIVILIZATION.

115-116. ART AND ARCHITECTURE OF ANCIENT ROME.

131, 132. HISTORY OF ROME.—6 s.h. PROFESSOR ROGERS

203-204. ROMAN EPIC: ENNIUS, VERGIL, MANILIUS, LUCAN, FLACCUS, STATIUS, SILIUS.—6 s.h.

205-206. ROMAN DRAMA.—6 s.h.

207-208. ROMAN PHILOSOPHY.

209-210. VULGAR LATIN: INTRODUCTION TO ROMANCE PHILOLOGY.

211-212. ROMAN ORATORY.—6 s.h.

PROFESSOR ROGERS

215. ROMAN ART AND ARCHAEOLOGY.

216. TOPOGRAPHY AND MONUMENTS OF ANCIENT ROME.

### DEPARTMENTAL MAJOR

*Prerequisite:* Latin 1-2, 3-4, or equivalent.

*Major Requirements:* 24 semester hours which must include courses 51-52, 101-102, 103-104, and 6 semester hours in courses at the 200-level.

*Recommended Courses:* Latin 65-66, Composition, and 131-132, Roman History.

*Related Work:* Eighteen hours of related work, elected usually in Greek, Philosophy, Art, Romance Languages, and English. Majors who contemplate graduate work are reminded of the necessity of Greek, German, and French for such study.

### MATHEMATICS

PROFESSOR GERGEN, CHAIRMAN; PROFESSOR DRESSSEL, DIRECTOR OF UNDERGRADUATE STUDIES;

ASSISTANT PROFESSOR HICKSON, SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSORS

CARLITZ, ELLIOTT, ROBERTS, AND THOMAS; ASSISTANT PROFESSOR PATTERSON;

DRS. ESTILL, GORDON, AND SHOENFIELD; MRS. MERZBACHER, MR. HODGES,

MISS ISAACS, MESSRS. SMYTHE, WYLIE, AND ASSISTANTS

The following program of courses in Mathematics is planned for 1953-54. Fall: 1, 5, 6, 50, 51, 52, 53, 123, 131, 139, 229, 235, 271, 285, 291. Spring: 1, 5, 6, 16, 50, 51, 52, 53, 124, 131, 140, 160, 204, 230, 236, 272, 286, 292.

1. INTERMEDIATE ALGEBRA.—Prerequisite: one unit in algebra and one unit in geometry. 3 s.h. STAFF

5. COLLEGE ALGEBRA.—Prerequisite: Mathematics 1, or one and one-half units in algebra and one unit in geometry. 3 s.h. STAFF

6. PLANE TRIGONOMETRY.—Prerequisite: Mathematics 1, or one and one-half units in algebra and one unit in geometry. 3 s.h. STAFF

15. SPHERICAL GEOMETRY AND TRIGONOMETRY.—Prerequisite: Mathematics 5 and 6. 3 s.h. STAFF

16. MATHEMATICS OF INVESTMENT.—Prerequisite: Mathematics 5. 3 s.h. STAFF

50. PLANE ANALYTIC GEOMETRY.—Prerequisite: Mathematics 5 and 6. 3 s.h. STAFF

51. CALCULUS I.—Prerequisite: must be preceded or accompanied by Mathematics 50. 3 s.h. STAFF

52. CALCULUS II.—Prerequisite: Mathematics 51. 3 s.h. STAFF

53. CALCULUS III.—Prerequisite: Mathematics 52. 3 s.h. STAFF

123. HIGHER ALGEBRA.—Prerequisite: Mathematics 52, or permission of the instructor. 3 s.h. ASSISTANT PROFESSOR HICKSON

124. STATISTICS.—Prerequisite: Mathematics 53. 3 s.h. ASSISTANT PROFESSOR HICKSON

125. ELEMENTARY THEORY OF EQUATIONS.—Prerequisite: Mathematics 3 s.h. STAFF

131. ELEMENTARY DIFFERENTIAL EQUATIONS.—Prerequisite: Mathematics 52. 3 s.h. STAFF

139-140. ADVANCED CALCULUS.—Prerequisite: Mathematics 53. 6 s.h. PROFESSOR ELLIOTT



158. FINITE DIFFERENCES.—Prerequisite: Mathematics 52. 3 s.h.

ASSISTANT PROFESSOR HICKSON

160. ELEMENTARY SOLID ANALYTIC GEOMETRY.—Prerequisite: Mathematics 53. 3 s.h.

STAFF

175. PROBABILITY.—Prerequisite: Mathematics 52. 3 s.h.

ASSISTANT PROFESSOR HICKSON

#### FOR SENIORS AND GRADUATES

201. HISTORY OF MATHEMATICS.—Prerequisite: Mathematics 51. 3 s.h.

204. TEACHING OF MATHEMATICS.—Prerequisite: must be preceded or accompanied by Mathematics 52. 3 s.h.

226. GALOIS THEORY OF EQUATIONS.—Prerequisite: Mathematics 53. 3 s.h.

PROFESSOR THOMAS

227-228. THEORY OF NUMBERS.—Prerequisite: Mathematics 53. 6 s.h.

PROFESSOR CARLITZ

229-230. ALGEBRAIC NUMBERS.—Prerequisite: Mathematics 125. 6 s.h.

PROFESSOR CARLITZ

235-236. ABSTRACT ALGEBRA.—Prerequisite: Mathematics 53. 6 s.h.

PROFESSOR CARLITZ

247-248. ARITHMETIC OF POLYNOMIALS.—Prerequisite: Mathematics 235, or consent of the instructor. 6 s.h.

PROFESSOR CARLITZ

250. HIGHER GEOMETRY.—3 s.h.

PROFESSOR THOMAS

253-254. DIFFERENTIAL GEOMETRY.—Prerequisite: Mathematics 53. 6 s.h.

PROFESSOR THOMAS

255-256. PROJECTIVE GEOMETRY.—Prerequisite: Mathematics 53. 6 s.h.

PROFESSOR THOMAS

271-272. INTRODUCTORY TOPOLOGY.—Prerequisite: Mathematics 53. 6 s.h.

PROFESSOR ROBERTS

285. MATHEMATICAL ANALYSIS FOR CHEMISTS AND PHYSICISTS.—Prerequisite: Mathematics 53. 3 s.h.

PROFESSOR DRESSEL

286. MATHEMATICAL ANALYSIS FOR CHEMISTS AND PHYSICISTS.—Prerequisite: Mathematics 53. 3 s.h.

PROFESSOR DRESSEL

291-292. THEORY OF FUNCTIONS.—Prerequisite: Mathematics 53. 6 s.h.

PROFESSOR THOMAS

#### DEPARTMENTAL MAJOR

For the A.B. degree:

*Prerequisite:* Mathematics 5 and 6.

*Major and Related Work:* 42 semester hours.

*Major Requirements:* Mathematics 50, 51, 52, 53, and 12 semester hours in courses in Mathematics numbered above 100, exclusive of Mathematics 201, 204.

*Related Work:* 18-24 semester hours of course work, ordinarily in the following departments: chemistry, economics and business administration, philosophy, physics.

For the B.S. degree:

*Prerequisite:* Mathematics 5 and 6.

*Major and Related Work:* 48 semester hours.

*Major Requirements:* Mathematics 50, 51, 52, 53, and 12 semester hours in courses in mathematics numbered above 100, exclusive of Mathematics 201, 204.

*Related Work:* 14-24 semester hours of course work in the natural sciences.

## MEDICAL SCIENCE

These courses in medical science have been approved by the Faculty Council as appropriate for the Bachelor's degree.

103. HUMAN PHYSIOLOGY.—Prerequisites: Chemistry 1-2 and Zoology 1-2. 6 s.h. ASSOCIATE PROFESSOR MCCREA AND STAFF

109. ANATOMY RELATED TO MOTION.—Prerequisite: Zoology 1-2. 8 s.h. PROFESSOR MARKEE AND STAFF

## NAVAL SCIENCE

PROFESSOR OCKER, CAPTAIN, U. S. NAVY, CHAIRMAN; ASSOCIATE PROFESSOR HARRELL, COMMANDER, U. S. NAVY, DIRECTOR OF UNDERGRADUATE STUDIES; ASSISTANT PROFESSOR OSTROM, LIEUTENANT COMMANDER, U. S. NAVY, SUPERVISOR OF FRESHMAN INSTRUCTION; ASSISTANT PROFESSORS KENNEDY, KUBISZEWSKI, AND WILSON, LIEUTENANTS, U. S. NAVY; AND ASSISTANT PROFESSOR READ, MAJOR, U. S. MARINE CORPS

Standardized titles and numbers for courses are established by the Bureau of Naval Personnel for use at the 52 NROTC institutions. The first digit indicates the year of the course; the second digit indicates whether semester or quarter (0 for semester, 1 for quarter); the third digit indicates the semester or quarter of school year in which offered. Specialized courses for Marine Corps officer candidates are indicated by the letter "M" after the number, and substitute for the basic course of the same number.

NS-101. NAVAL HISTORY AND ORIENTATION.—3 s.h. CAPTAIN OCKER, LIEUTENANT COMMANDER OSTROM

NS-102. NAVAL HISTORY AND ORIENTATION.—3 s.h. CAPTAIN OCKER, LIEUTENANT COMMANDER OSTROM

NS-201. NAVAL WEAPONS.—3 s.h. LIEUTENANT WILSON

NS-202. NAVAL WEAPONS.—3 s.h. LIEUTENANT WILSON

NS-301. NAVIGATION.—3 s.h. COMMANDER HARRELL; LIEUTENANT KENNEDY

NS-301M. EVOLUTION OF THE ART OF WAR.—3 s.h. MAJOR READ

NS-302. NAVIGATION.—3 s.h. COMMANDER HARRELL; LIEUTENANT KENNEDY

NS-302M. MODERN BASIC STRATEGY AND TACTICS.—3 s.h. MAJOR READ

NS-401. NAVAL MACHINERY AND DIESEL ENGINES.—3 s.h. LIEUTENANT KUBISZEWSKI

NS-401E. NAVAL MACHINERY, SHIP STABILITY.—1 s.h. LIEUTENANT KUBISZEWSKI

NS-401M. AMPHIBIOUS WARFARE.—3 s.h. MAJOR READ

NS-402. SHIP STABILITY, NAVAL JUSTICE, AND LEADERSHIP.—3 s.h. LIEUTENANT KUBISZEWSKI

NS-402M. AMPHIBIOUS WARFARE, PART II.—3 s.h. MAJOR READ

## REQUIREMENTS FOR COMMISSION

Naval Science: 24 semester hours.

Other university courses: Completion of course requirements to qualify for a baccalaureate degree, or higher. These courses must include Math 6 (unless math through trigonometry successfully completed in secondary school); Physics 1, 2 or 51, 52, to be completed by the end of the sophomore year (mandatory for Regular students only). Physical training must be taken in accordance with University requirements and each student must include such instruction in swimming as to qualify him as a first class swimmer.

Summer training: Regular NROTC students must participate in three periods of

training on board ship or at naval shore stations. Contract students are required to take one training cruise of three weeks' duration, normally between the junior and senior years.

## PHILOSOPHY

PROFESSOR NEGLEY, CHAIRMAN; ASSISTANT PROFESSOR WELSH, DIRECTOR OF UNDERGRADUATE STUDIES; ASSISTANT PROFESSOR PEACH, SUPERVISOR OF FRESHMAN INSTRUCTION;  
PROFESSORS BAYLIS AND PATTERSON; DR. DUNHAM

48. LOGIC.—3 s.h. ASSISTANT PROFESSOR WELSH; DR. DUNHAM
49. ETHICS.—3 s.h. PROFESSORS BAYLIS AND NEGLEY; ASSISTANT PROFESSOR WELSH
91. INTRODUCTION TO PHILOSOPHY.—3 s.h.  
PROFESSOR PATTERSON; ASSISTANT PROFESSORS PEACH AND WELSH;  
DR. DUNHAM
93. HISTORY OF PHILOSOPHY: ANCIENT AND MEDIEVAL.—3 s.h.  
PROFESSOR PATTERSON
94. HISTORY OF PHILOSOPHY: MODERN.—3 s.h. ASSISTANT PROFESSOR PEACH
97. POLITICAL AND SOCIAL PHILOSOPHY.—3 s.h. PROFESSOR NEGLEY
98. SOCIAL IDEALS AND UTOPIAS.—3 s.h. PROFESSOR NEGLEY
103. SYMBOLIC LOGIC.—3 s.h. DR. DUNHAM
104. PHILOSOPHY OF SCIENCE.—3 s.h. DR. DUNHAM
109. INTRODUCTION TO THE PHILOSOPHY OF LANGUAGE.—3 s.h.  
ASSISTANT PROFESSOR WELSH
115. REASON AND COMMON SENSE IN 17TH AND 18TH CENTURY  
BRITISH THOUGHT.—3 s.h. ASSISTANT PROFESSOR PEACH
116. THE DEVELOPMENT OF PHILOSOPHY IN AMERICA.—3 s.h.  
PROFESSOR NEGLEY
117. THE HISTORY OF ETHICS.—3 s.h. ASSISTANT PROFESSOR WELSH
199. PHILOSOPHY OF RELIGION.—3 s.h. PROFESSOR PATTERSON

### FOR SENIORS AND GRADUATES

201. PHILOSOPHY OF LITERARY ANALYSIS.—3 s.h.  
ASSISTANT PROFESSOR WELSH
203. CONTEMPORARY ETHICAL THEORIES.—3 s.h. PROFESSOR BAYLIS
205. THE PHILOSOPHY OF HISTORY.—3 s.h. PROFESSOR NEGLEY
208. POLITICAL PHILOSOPHY.—3 s.h. PROFESSOR NEGLEY
209. THE PHILOSOPHY OF RELIGION.—3 s.h. PROFESSOR PATTERSON
211. PLATO.—3 s.h. PROFESSOR PATTERSON
212. HISTORY OF MODERN PHILOSOPHY.—3 s.h. ASSISTANT PROFESSOR PEACH
- 213-214. HISTORY OF AESTHETICS.—3 s.h.
217. ARISTOTLE.—3 s.h. PROFESSOR PATTERSON
218. MEDIEVAL PHILOSOPHY.—3 s.h. PROFESSOR PATTERSON
223. CONTEMPORARY PHILOSOPHY: IDEALISM.—3 s.h. PROFESSOR NEGLEY
224. CONTEMPORARY PHILOSOPHY: REALISM.—3 s.h. PROFESSOR BAYLIS
225. LOCKE, BERKELEY, HUME.—3 s.h.
231. PHILOSOPHY OF SCIENCE.—3 s.h.

232. SPECIAL PROBLEMS IN PHILOSOPHY OF SCIENCE.—3 s.h.

DR. DUNHAM

236. ORIENTAL PHILOSOPHY.—3 s.h.

PROFESSOR PATTERSON

241. LOGIC.—3 s.h.

242. SCIENTIFIC METHODOLOGY.—3 s.h.

250. PHILOSOPHICAL ANALYSIS.—3 s.h.

PROFESSOR BAYLIS

251. EPISTEMOLOGY.—3 s.h.

PROFESSOR BAYLIS

252. METAPHYSICS.—3 s.h.

PROFESSOR BAYLIS

### DEPARTMENTAL MAJOR

*Major Requirements:* Twenty-four semester hours in philosophy including the following:

Philosophy 93 and 94.

Philosophy 117, 203, or 208.

6 semester hours in Philosophy senior-graduate courses.

Programs of study for departmental majors must be approved by the Director of Undergraduate Studies of the department.

### PHYSICS

PROFESSOR NIELSEN, CHAIRMAN; PROFESSOR HATLEY, DIRECTOR OF UNDERGRADUATE STUDIES; PROFESSOR CARPENTER, SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSORS GORDY, LONDON, NEWSON, NORDHEIM, AND SPONER; ASSOCIATE PROFESSORS FAIRBANK AND GREULING; ASSISTANT PROFESSORS BLOCK AND LEWIS; DRS. MOBLEY AND WILLIAMSON; AND ASSISTANTS

A student wishing to major in physics should arrange to complete the necessary mathematics as soon as possible.

1-2. INTRODUCTORY PHYSICS.—8 s.h.

PROFESSORS CARPENTER AND HATLEY AND STAFF; AND ASSISTANTS

51-52. GENERAL PHYSICS.—Prerequisite: Mathematics 5-6 or equivalent (Mathematics 6 may be taken concurrently). 10 s.h.

PROFESSORS HATLEY AND CARPENTER AND STAFF; AND ASSISTANTS

125. INTERMEDIATE PHYSICS—MECHANICS.—Prerequisites: Physics 1-2 or 51-52 or equivalent, and a course in differential and integral calculus which may be taken concurrently. 3 s.h.

PROFESSOR NIELSEN

126. INTERMEDIATE PHYSICS—ELECTRICITY.—Prerequisites: Physics 125 or equivalent work approved by the instructor, and differential and integral calculus. Integral calculus may be taken concurrently. 4 s.h.

ASSISTANT PROFESSOR LEWIS

175. INTERMEDIATE PHYSICS—OPTICS.—Prerequisites: Physics 125 and 126 or equivalent work approved by instructor, and differential and integral calculus. 4 s.h.

ASSISTANT PROFESSOR LEWIS

176. INTERMEDIATE PHYSICS—THERMODYNAMICS AND KINETIC THEORY.—Prerequisites: Physics 125 or equivalent work approved by the instructor, and differential and integral calculus. 3 s.h.

ASSOCIATE PROFESSOR FAIRBANK

A course in general college physics, Physics 125 and 126 or equivalent validated by examination, and a course in differential and integral calculus are prerequisites to all courses numbered 200 and above.

201-202. MECHANICS.—6 s.h.

ASSISTANT PROFESSOR BLOCK

203-204. ELECTRICITY AND MAGNETISM.—6 s.h.

205. SPECTROSCOPY.—4 s.h.

PROFESSOR SPONER

213-214. CONTEMPORARY PHYSICS.—6 s.h.

ASSISTANT PROFESSOR LEWIS

- 217-218. ADVANCED PHYSICS LABORATORY.—2-6 s.h. THE STAFF  
 219. ELECTRON TUBES AND THEIR APPLICATION.—4 s.h. PROFESSOR GORDY  
 220. ELECTRONIC CIRCUIT ANALYSIS.—3 s.h. PROFESSOR GORDY  
 225-226. ELEMENTARY INVESTIGATIONS.—3-6 s.h. THE STAFF

## DEPARTMENTAL MAJOR

## A. For the A.B. degree:

*Prerequisites:* Physics 1-2 or 51-52 or equivalent, and Mathematics 5-6.

*Major Requirements:* Eighteen to 24 semester hours in physics including Physics 125, 126, 175 and 176 or equivalent.

*Related Work:* Eighteen to 24 semester hours from the following courses: Mathematics 51, 52, 53 and 131, and Chemistry 1-2.

## B. For the B.S. degree:

*Prerequisites:* Physics 1-2 or 51-52 or equivalent, and Mathematics 5-6 or equivalent.

*Major Requirements:* Twenty-four to 34 semester hours in physics including Physics 125, 126, 175 and 176 or equivalent.

*Related Work:* Fourteen to 24 semester hours from the following courses: Mathematics 51, 52, 53 and 131, and Chemistry 1-2.

## POLITICAL SCIENCE

PROFESSOR RANKIN, CHAIRMAN; PROFESSOR CONNERY, DIRECTOR OF UNDERGRADUATE STUDIES;  
 PROFESSORS COLE, HALLOWELL, VON BECKERATH, AND WILSON; VISITING PROFESSORS  
 ROBSON,\* WESTPHALEN,† AND ZINK;† LECTURER ELLIS; ASSOCIATE PROFESSOR SIMP-  
 SON; ASSISTANT PROFESSORS CHEEK, HANSON, AND TRAVIS; DR. HALL;  
 MESSRS. HOWELL AND NOBLE

Students intending to major in the department should take either Political Science 61-62 or 63-64. No student may take both courses for credit. Ordinarily one or the other must be taken before proceeding to more advanced work in the department. This rule may be waived with the consent of the instructor giving the advanced course.

The advanced courses are divided into three major groups but no sequence of courses beyond the introductory course is prescribed. The student would be well advised, however, to select some courses from each group.

The Senior Seminars are designed to provide an opportunity for majors in the department to pursue independent study and research.

## INTRODUCTORY COURSES

21. PRINCIPLES OF GOVERNMENT.—3 s.h. ASSISTANT PROFESSOR TRAVIS  
 22. GOVERNMENTAL PROBLEMS IN INTERNATIONAL RELATIONS.—3 s.h. ASSISTANT PROFESSOR TRAVIS  
 61-62. AMERICAN GOVERNMENT AND POLITICS.—6 s.h.  
 PROFESSOR CONNERY; ASSOCIATE PROFESSOR SIMPSON; ASSISTANT PROFESSORS  
 CHEEK AND HANSON; DR. HALL, AND MESSRS. HOWELL AND NOBLE  
 63-64. MODERN CONSTITUTIONAL GOVERNMENT.—6 s.h. DR. ELLIS

## POLITICAL THEORY AND COMPARATIVE GOVERNMENT

123. INTRODUCTION TO POLITICAL PHILOSOPHY.—3 s.h. PROFESSOR HALLOWELL

\* First Semester, 1952-53.

† Second Semester, 1952-53.



136. MAJOR EUROPEAN GOVERNMENTS.—3 s.h.  
PROFESSORS COLE AND HALLOWELL
152. LATIN-AMERICAN POLITICAL INSTITUTIONS.—3 s.h.  
ASSISTANT PROFESSOR TRAVIS
180. JURISPRUDENCE.—3 s.h.  
PROFESSOR HALLOWELL
211. POLITICAL INSTITUTIONS OF THE FAR EAST.—3 s.h.
223. POLITICAL THOUGHT TO THE SEVENTEENTH CENTURY.—3 s.h.  
PROFESSOR WILSON
224. MODERN POLITICAL THEORY.—3 s.h.  
PROFESSOR HALLOWELL
225. COMPARATIVE GOVERNMENT.—3 s.h.  
PROFESSOR COLE AND VISITING PROFESSOR ROBSON
226. COMPARATIVE GOVERNMENT.—3 s.h.  
PROFESSOR COLE AND VISITING PROFESSOR ZINK
229. RECENT AND CONTEMPORARY POLITICAL THEORY.—3 s.h.  
PROFESSOR HALLOWELL
231. AMERICAN POLITICAL THEORY.—3 s.h.  
PROFESSOR HALLOWELL
234. THE BRITISH COMMONWEALTH.—3 s.h.  
PROFESSOR COLE AND VISITING PROFESSOR ZINK
252. SPANISH-AMERICAN CONSTITUTIONALISM.—3 s.h.
272. CONTEMPORARY EUROPEAN LABOR PROBLEMS.—3 s.h.  
VISITING PROFESSOR WESTPHALEN

## AMERICAN GOVERNMENT AND PUBLIC ADMINISTRATION

125. AMERICAN POLITICAL PARTIES AND PRACTICAL POLITICS.—3 s.h.  
ASSOCIATE PROFESSOR SIMPSON
141. PUBLIC ADMINISTRATION.—3 s.h.
146. LEGISLATION.—3 s.h.  
ASSOCIATE PROFESSOR SIMPSON
161. GOVERNMENT AND PLANNING.—3 s.h.  
ASSISTANT PROFESSOR HANSON
164. GOVERNMENT CONTROL OF THE SOCIAL AND ECONOMIC ORDER.—3 s.h.  
ASSISTANT PROFESSOR HANSON
174. POLITICS AND ECONOMICS.—3 s.h.  
PROFESSOR VON BECKERATH
191. TOPICS IN LOCAL GOVERNMENT.—3 s.h.  
ASSISTANT PROFESSOR CHEEK
207. AMERICAN CONSTITUTIONAL LAW AND THEORY.—3 s.h.  
PROFESSOR RANKIN
209. PROBLEMS IN STATE AND LOCAL GOVERNMENT IN THE UNITED STATES.—3 s.h.  
PROFESSOR RANKIN
230. AMERICAN POLITICAL INSTITUTIONS.—3 s.h.  
PROFESSOR RANKIN
241. ADMINISTRATIVE MANAGEMENT.—3 s.h.  
PROFESSOR CONNERY
242. NATIONAL ADMINISTRATION.—3 s.h.  
PROFESSOR CONNERY
246. GOVERNMENT ADMINISTRATION AND PUBLIC POLICY.—3 s.h.  
PROFESSOR CONNERY
271. SOCIOPOLITICS AND CAPITALISM.—3 s.h.  
PROFESSOR VON BECKERATH
291. PROBLEMS OF MUNICIPAL GOVERNMENT.—3 s.h.  
PROFESSOR RANKIN
292. MUNICIPAL ADMINISTRATION.—3 s.h.  
PROFESSOR RANKIN

## INTERNATIONAL LAW AND RELATIONS

121. ELEMENTS OF INTERNATIONAL RELATIONS.—3 s.h.  
DR. ELLIS

122. MODERN INTERNATIONAL POLITICS.—3 s.h.

DR. ELLIS

*Students who have received credit for History 135-136 may not receive credit for this course.*

131. SURVEY OF FAR EASTERN POLITICS.—3 s.h. (Formerly Political Science 111.)

DR. ELLIS

132. CONTEMPORARY PROBLEMS IN FAR EASTERN POLITICS.—3 s.h. (Formerly Political Science 112.)

DR. ELLIS

151. INTERNATIONAL POLITICS OF LATIN AMERICA.—3 s.h.

ASSISTANT PROFESSOR TRAVIS

158. CONTROL OF AMERICAN FOREIGN POLICY.—3 s.h.

ASSISTANT PROFESSOR TRAVIS

212. INTERNATIONAL POLITICS OF THE FAR EAST.—3 s.h.

221. INTERNATIONAL PUBLIC ORGANIZATION.—3 s.h.

PROFESSOR WILSON

227-228. INTERNATIONAL LAW.—6 s.h.

PROFESSOR WILSON

### UNDERGRADUATE SEMINARS

201. SENIOR SEMINAR IN POLITICAL SCIENCE.—Prerequisite: consent of the instructor. 3 s.h.

PROFESSORS COLE AND HALLOWELL

202. SENIOR SEMINAR IN POLITICAL SCIENCE.—Prerequisite: consent of the instructor. 3 s.h.

PROFESSOR CONNERY

### DEPARTMENTAL MAJOR

*Prerequisite:* Political Science 61-62 or 63-64.

*Major Requirements:* Eighteen semester hours of work in the Department above courses 61-62 or 63-64, including at least nine semester hours in Senior-Graduate courses.

*Related Work:* Six hours each in two departments approved by the Political Science adviser. Courses may not be those primarily open to freshmen. Usually related work is taken in the Departments of History, Economics, Sociology, or Philosophy.

### PSYCHOLOGY

PROFESSOR RODNICK, CHAIRMAN; ASSISTANT PROFESSOR GARMEZY, DIRECTOR OF UNDERGRADUATE STUDIES; PROFESSORS ADAMS, DAI, KUDER, LUNDHOLM, AND ZENER; ASSOCIATE PROFESSORS BANHAM, KIMBLE, AND KOCH; ASSISTANT PROFESSORS COHEN, COLLIER, FILER, GUTTMAN, MCHUGH, AND REICHENBERG-HACKETT

91. INTRODUCTORY PSYCHOLOGY.—3 s.h.

STAFF

Course 91 or its equivalent is a prerequisite for all other courses in psychology.

104. COMPARATIVE PSYCHOLOGY.—3 s.h.

106. ABNORMAL PSYCHOLOGY.—3 s.h.

PROFESSOR LUNDHOLM

107. PSYCHOLOGICAL ANALYSIS OF PROMINENT CHARACTERS IN LITERATURE.—3 s.h.

PROFESSOR LUNDHOLM

109. INTRODUCTORY SOCIAL PSYCHOLOGY.—3 s.h.

ASSISTANT PROFESSOR MCHUGH

110. APPLIED PSYCHOLOGY.—3 s.h.

ASSISTANT PROFESSOR MCHUGH

111. ADVANCED GENERAL PSYCHOLOGY.—3 s.h.

115. PSYCHOLOGY OF PERSONALITY.—3 s.h.

ASSISTANT PROFESSOR REICHENBERG-HACKETT

116. PSYCHOLOGY OF ADJUSTMENT.—3 s.h.  
ASSISTANT PROFESSOR REICHENBERG-HACKETT  
Not open to students who have had Education 68. Not given for major credit in Psychology.
119. ELEMENTARY LABORATORY PSYCHOLOGY.—4 s.h.  
ASSISTANT PROFESSOR GUTTMAN
120. BASIC STATISTICAL TECHNIQUES IN PSYCHOLOGY.—3 s.h.  
ASSISTANT PROFESSOR COLLIER
121. CHILD PSYCHOLOGY.—3 s.h.  
ASSISTANT PROFESSOR MCHUGH  
Not open to students who have had Education 118.
122. ADJUSTMENT OF THE PRE-SCHOOL CHILD.—3 s.h.  
ASSISTANT PROFESSOR REICHENBERG-HACKETT
126. ADOLESCENT PSYCHOLOGY.—Prerequisite: Psychology 121 or Education 68. 3 s.h.  
ASSISTANT PROFESSOR MCHUGH
130. PRINCIPLES AND METHODS OF PSYCHOLOGICAL EVALUATION.—3 s.h.  
ASSOCIATE PROFESSOR BANHAM
132. THE PSYCHOLOGY OF INDIVIDUAL DIFFERENCES.—3 s.h.  
ASSOCIATE PROFESSOR BANHAM
141. PERSONALITY AND BEHAVIOR DISORDER.—3 s.h.  
ASSISTANT PROFESSOR FILER
144. LEARNING AND MOTIVATION.—3 s.h.  
ASSOCIATE PROFESSOR KIMBLE
145. EXPERIMENTAL APPROACHES TO PERSONALITY.—3 s.h.  
ASSISTANT PROFESSOR GARMEZY
146. EXPERIMENTAL PSYCHOLOGY IN INDUSTRY AND ENGINEERING.—3 s.h.  
ASSISTANT PROFESSOR COLLIER
148. PSYCHOLOGY OF PERCEPTION, MEMORY AND THINKING.—3 s.h.  
PROFESSOR ZENER
203. PURPOSIVE PSYCHOLOGY: CONATION AND OUR CONSCIOUS LIFE.—3 s.h.  
PROFESSOR LUNDHOLM
206. SOCIAL PSYCHOLOGY.—3 s.h.  
PROFESSOR ADAMS
212. PHYSIOLOGICAL PSYCHOLOGY.—Presupposes Introductory Zoology. 3 s.h.  
ASSISTANT PROFESSOR GUTTMAN
215. DEVELOPMENTAL PSYCHOLOGY.—3 s.h.  
PROFESSOR ADAMS
223. ABNORMAL PSYCHOLOGY.—3 s.h.  
PROFESSOR LUNDHOLM
228. PSYCHOLOGY OF BELIEVING.—3 s.h.  
PROFESSOR LUNDHOLM
- 231-232. INTRODUCTION TO RESEARCH.  
STAFF
236. THEORETICAL PSYCHOLOGY.—3 s.h.  
ASSOCIATE PROFESSOR KOCH

## DEPARTMENTAL MAJOR

*Prerequisite:* Psychology 91 or equivalent.

*Major Requirements:* 24 semester hours in psychology including: Psychology 91, 119, 120; at least one course selected from Psychology 144, 145, and 148; at least one 200 level course.

*Related Work:* 18 semester hours of related work which usually includes courses in zoology and sociology or anthropology. Other courses which may meet the minor requirement must have the approval of the Director of Undergraduate Studies of the Psychology Department.

## RELIGION

PROFESSOR MYERS, CHAIRMAN AND DIRECTOR OF UNDERGRADUATE STUDIES; DR. PERRY, SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSOR CRUM; ASSISTANT PROFESSORS BRADLEY, PHILLIPS, PRICE AND WETHINGTON; DR. SALES

The uniform course requirements in Religion may be fulfilled by completing six semester hours in any of the following courses: 1, 2, 51, 52, 91, 93, 94, 101, 103, 104, 114, 130, 132, 181, 182.

\* *The prerequisite in Bible may be fulfilled from the following courses: Religion 1, 2, 51, 52, 101, 103, 104, 114.*

## 1. THE ENGLISH BIBLE.—3 s.h.

PROFESSOR CRUM; ASSISTANT PROFESSORS BRADLEY AND PRICE;  
DRS. PERRY AND SALES; MR. DANIELS

## 2. THE ENGLISH BIBLE.—3 s.h.

PROFESSOR CRUM; ASSISTANT PROFESSORS BRADLEY, PRICE AND WETHINGTON;  
DRS. PERRY AND SALES; MR. DANIELS

## 51. THE ENGLISH BIBLE.—3 s.h.

PROFESSOR MYERS; ASSISTANT PROFESSORS BRADLEY, PRICE  
AND WETHINGTON; DR. SALES

## 52. THE ENGLISH BIBLE.—3 s.h.

PROFESSORS CRUM AND MYERS; ASSISTANT PROFESSORS BRADLEY,  
PRICE AND WETHINGTON; DR. SALES

## 91. AN INTRODUCTION TO CHRISTIAN ETHICS.—3 s.h.

ASSISTANT PROFESSOR PRICE

93. SURVEY OF THE WORLD'S GREAT RELIGIONS.—Prerequisite 3 semester hours of Bible.\* 3 s.h.  
ASSISTANT PROFESSOR BRADLEY

94. THE BEGINNINGS OF THE CHRISTIAN CHURCH.—Prerequisite: Religion 2 or 52. 3 s.h.  
DR. SALES

## 101. THE SOCIAL TEACHINGS OF THE PROPHETS AND JESUS.—3 s.h.

ASSISTANT PROFESSOR PHILLIPS

## 103. THE PROPHETS OF THE OLD TESTAMENT.—3 s.h.

PROFESSOR MYERS; DR. PERRY

104. JUDAISM FROM THE EXILE TO THE FALL OF JERUSALEM IN 135. A.D.—3 s.h.  
DR. SALES

107. THE GREAT PROPHETS OF ISRAEL.—Prerequisites: Religion 1, 2 or 51, 52 or equivalent. 3 s.h.  
PROFESSOR MYERS

## 114. THE LIFE AND TEACHINGS OF JESUS.—3 s.h.

PROFESSOR MYERS; ASSISTANT PROFESSORS BRADLEY AND PRICE

116.—THE MISSION AND MESSAGE OF JESUS.—Prerequisites: Religion 1, 2 or 51, 52 or equivalent. 3 s.h.  
PROFESSOR MYERS

130. CHRISTIAN ETHICS IN HISTORY AND MODERN LIFE.—Prerequisite: 3 s.h. in Bible.\* 3 s.h.  
ASSISTANT PROFESSOR WETHINGTON

132. THE CHRISTIAN AND CONTEMPORARY SOCIAL PROBLEMS.—Prerequisite: 3 semester hours of Bible.\* 3 s.h.  
ASSISTANT PROFESSOR PHILLIPS

## 134. CONTEMPORARY RELIGIONS IN THE UNITED STATES.—3 s.h.

ASSISTANT PROFESSOR PHILLIPS

## 169. CHARACTER PROBLEMS.—3 s.h.

PROFESSOR CRUM

## 170. RELIGION AND THE FAMILY.—3 s.h.

PROFESSOR CRUM

## 171. INTRODUCTION TO THE PSYCHOLOGY OF RELIGION.—3 s.h.

PROFESSOR HICKMAN

181. THE NATURE AND EARLY DEVELOPMENT OF RELIGION.—3 s.h.  
ASSISTANT PROFESSOR WETHINGTON
182. RELIGION IN THE CULTURE OF THE EAST AND WEST.—Prerequisite: 3 semester hours of Bible.\* 3 s.h.  
DR. PERRY
192. CHRISTIAN BELIEFS.—Prerequisite: 3 semester hours of Bible.\* 3 s.h.  
ASSISTANT PROFESSOR BRADLEY
193. A STUDY OF MATERIALS SUITABLE FOR PUBLIC SCHOOL COURSES IN RELIGION AND ETHICS.—3 s.h.  
ASSOCIATE PROFESSOR CRUM
197. THE BIBLICAL INTERPRETATION OF HISTORY.—Prerequisite: 6 semester hours of Bible.\* 3 s.h.  
DR. PERRY

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The following courses offered in the Divinity School may be taken by undergraduates:

- 103 (DS) -104 (DS). HELLENISTIC GREEK.—6 s.h. MR. EDWARDS
- 201 (DS) -202 (DS). FIRST HEBREW.—6 s.h. PROFESSOR STINESPRING
- 207 (DS) -208 (DS). SECOND HEBREW.—6 s.h. ASSISTANT PROFESSOR BROWNLEE

### DEPARTMENTAL MAJOR

*Prerequisite:* Religion 1-2 or 51-52.

*Major Requirements:* A major in the Department of Religion consists of 18 semester hours of work, exclusive of the introductory course, selected with the approval of the instructor under whose supervision the student does his major work. Six of the 18 semester hours must be in courses with biblical content.

*Related Work:* This is usually twenty-four semester hours, in courses that relate to the educational needs of the student. In general, it includes six semester hours in philosophy, psychology and sociology. Other courses may be chosen from the offerings in art, education, English literature, health education, Greek, history, Latin and political science.

### ROMANCE LANGUAGES

PROFESSOR JORDAN, CHAIRMAN; PROFESSOR WALTON, DIRECTOR OF UNDERGRADUATE STUDIES IN FRENCH; ASSOCIATE PROFESSOR DAVIS, DIRECTOR OF UNDERGRADUATE STUDIES IN SPANISH; ASSOCIATE PROFESSOR DOW, SUPERVISOR OF FRESHMAN STUDIES IN FRENCH; ASSISTANT PROFESSOR FEIN, SUPERVISOR OF FRESHMAN STUDIES IN SPANISH; PROFESSORS KENISTON AND PREDMORE; ASSOCIATE PROFESSORS ARCHIE AND CASTELLANO; ASSISTANT PROFESSORS DEMOREST AND TORRE; DRS. BOWEN, CORDLE, GIRARD AND GRANT; MRS. CASTELLANO, MRS. DOW, MR. PRATT, MISS CAMPBELL, MISS MULBROW, MESSRS. RENTZ, RUBIO AND THOMPSON

French 51-52 and Spanish 65-66 are the prerequisites for all elective courses. Some preparation in courses of the 100 level is prerequisite to election of courses above 200, except by special authorization of the department.

Students who, by reason of foreign residence, have had special opportunities in French or Spanish must be classified by the Director of Undergraduate Studies.

#### FRENCH

- 1-2. ELEMENTARY FRENCH.—6 s.h. ASSOCIATE PROFESSOR DOW AND STAFF
- 3-4. INTERMEDIATE FRENCH.—Prerequisite: French 1 and 2 or two years of high-school French. 6 s.h. ASSOCIATE PROFESSOR DOW AND STAFF
- 51-52. INTRODUCTION TO FRENCH LITERATURE.—Prerequisite: French 3-4 or equivalent. 6 s.h. PROFESSOR WALTON AND STAFF



55. INTERMEDIATE CONVERSATION. Mrs. Dow
56. INTERMEDIATE CONVERSATION.—Prerequisite: French 55. To be taken concurrently with French 52. 1 s.h. Mrs. Dow
108. THE FRENCH ROMANTIC MOVEMENT.—3 s.h.  
ASSOCIATE PROFESSOR DOW
- 111-112. FRENCH DRAMA SINCE 1850.—6 s.h. ASSOCIATE PROFESSOR DOW
123. LIBERAL THINKERS OF THE EIGHTEENTH CENTURY.—3 s.h.  
ASSOCIATE PROFESSOR ARCHIE
- 127-128. ADVANCED COMPOSITION AND CONVERSATION.—6 s.h.  
Mrs. Dow
134. CONTEMPORARY FRENCH LIFE AND THOUGHT.—3 s.h. DR. CORDLE
210. THE AGE OF RICHELIEU.—3 s.h. ASSISTANT PROFESSOR DEMOREST
213. FRENCH CLASSICISM.—3 s.h. PROFESSOR WALTON
214. FRENCH CLASSICISM.—3 s.h. PROFESSOR WALTON
- 215-216. THE MODERN FRENCH NOVEL.—6 s.h. PROFESSOR JORDAN
227. FRENCH POETRY SINCE THÉOPHILE GAUTIER.—3 s.h.  
PROFESSOR WALTON
238. ANATOLE FRANCE.—3 s.h. PROFESSOR WALTON

## SPANISH

- 1-2. ELEMENTARY SPANISH.—6 s.h. ASSOCIATE PROFESSOR DAVIS AND STAFF
- 3-4. INTERMEDIATE SPANISH.—Prerequisite: Spanish 1 and 2 or two years of high-school Spanish. 6 s.h. PROFESSOR PREDMORE AND STAFF
- 65-66. INTRODUCTION TO SPANISH LITERATURE.—Prerequisite: Spanish 3-4 equivalent. 6 s.h. ASSOCIATE PROFESSOR CASTELLANO AND STAFF
68. INTRODUCTION TO SPANISH-AMERICAN LITERATURE.—3 s.h.  
ASSOCIATE PROFESSOR CASTELLANO AND STAFF
71. INTERMEDIATE CONVERSATION.—1 s.h. Mrs. CASTELLANO
72. INTERMEDIATE CONVERSATION.—Prerequisite: Spanish 71. To be taken concurrently with Spanish 66 or 68. 1 s.h. Mrs. CASTELLANO
155. REPRESENTATIVE WRITERS OF SPANISH AMERICAN LITERATURE.—3 s.h. ASSISTANT PROFESSOR FEIN
156. REPRESENTATIVE WRITERS OF SPANISH AMERICAN LITERATURE.—3 s.h. ASSISTANT PROFESSOR FEIN
173. ADVANCED CONVERSATION.—Prerequisite: Spanish 66 (or 68) and 71-72, or permission. 3 s.h. ASSOCIATE PROFESSOR CASTELLANO
174. PHONETICS AND DICTION.—Prerequisite: Spanish 173, or permission. 3 s.h. ASSOCIATE PROFESSOR CASTELLANO
257. OLD SPANISH LANGUAGE.—3 s.h. ASSOCIATE PROFESSOR DAVIS
258. OLD SPANISH LITERATURE.—3 s.h. ASSOCIATE PROFESSOR DAVIS
260. ADVANCED COMPOSITION AND SYNTAX.—Prerequisite: Spanish 173-174, or permission. 3 s.h. ASSOCIATE PROFESSOR CASTELLANO
264. MODERN AND CONTEMPORARY SPANISH THEATRE.—3 s.h.  
ASSOCIATE PROFESSOR CASTELLANO
265. GOLDEN AGE LITERATURE: CERVANTES.—3 s.h. PROFESSOR PREDMORE
266. GOLDEN AGE LITERATURE: THE DRAMA.—3 s.h.  
ASSOCIATE PROFESSOR CASTELLANO

275. CONTEMPORARY SPANISH LITERATURE. ESSAY AND LYRIC POETRY.—3 s.h. PROFESSOR PREDMORE

276. CONTEMPORARY SPANISH LITERATURE: NOVEL.—3 s.h. PROFESSOR PREDMORE

285. THE EARLY RENAISSANCE IN SPAIN (1474-1550).—3 s.h. PROFESSOR KENISTON

286. THE LATER RENAISSANCE IN SPAIN (1550-1600).—3 s.h. PROFESSOR KENISTON

### THE TEACHING OF ROMANCE LANGUAGES

RL 118. THE TEACHING OF ROMANCE LANGUAGES.—Evaluation of objectives and methods; a study of the practical problems involved in the teaching of reading, writing, hearing, and speaking; analysis of text books, special foreign language programs, teaching aids, and testing techniques. 3 s.h. (E)  
ASSOCIATE PROFESSOR DOW

### DEPARTMENTAL MAJOR

#### *Prerequisites:*

For French: French 51-52 (combined with 55-56), or equivalent.

For Spanish: Spanish 65-66 (combined with 71-72), or equivalent.

#### *Major Requirements:*

For French: Eighteen semester hours of work must be completed in courses numbered above 100 and must include: (a) six semester hours in course 127-128; (b) six semester hours of literature in courses 210 to 238.

For Spanish: Eighteen semester hours of work must be completed in courses numbered above 100 and must include: (a) six semester hours of linguistic training (courses 173-174, 260); (b) six semester hours of literature in the courses numbered above 200.

### RELATED WORK

Majors in Romance Languages will normally take the prescribed amount of related work in the following fields: (1) other foreign languages and literature; (2) aesthetics; (3) history and appreciation courses in music and art; (4) philosophy; (5) general psychology; (6) history; (7) general sociology and anthropology.

Majors in Spanish may take a maximum of six hours of Spanish American political science or economics if taken with or after Spanish 155-156.

## RUSSIAN

### ASSISTANT PROFESSOR WINNER

51-52. INTRODUCTION TO THE RUSSIAN LANGUAGE.—6 s.h.  
ASSISTANT PROFESSOR WINNER

53-54. INTERMEDIATE RUSSIAN LANGUAGE.—Prerequisite: Russian 51-52 or equivalent. 6 s.h. ASSISTANT PROFESSOR WINNER

63-64. INTRODUCTION TO SCIENTIFIC AND MEDICAL RUSSIAN.—Prerequisite: Russian 51-52 or equivalent. 6 s.h. ASSISTANT PROFESSOR WINNER  
[Not offered in 1953-54]

101-102. RUSSIAN CULTURE AND LITERATURE THROUGH THE NINETEENTH CENTURY.—6 s.h. ASSISTANT PROFESSOR WINNER

103. AN INTRODUCTION TO SOVIET LITERATURE AND CULTURE.—3 s.h. ASSISTANT PROFESSOR WINNER  
[Not offered in 1953-54]

105. HISTORY OF THE RUSSIAN THEATRE AND DRAMA.—3 s.h. ASSISTANT PROFESSOR WINNER

112. PUSHKIN AND THE BIRTH OF RUSSIAN REALISM.—Prerequisite: Russian 101 or consent of the instructor. 3 s.h. ASSISTANT PROFESSOR WINNER

## SOCIOLOGY AND ANTHROPOLOGY

PROFESSOR JENSEN, CHAIRMAN AND DIRECTOR OF UNDERGRADUATE STUDIES, EAST CAMPUS;  
 ASSOCIATE PROFESSOR SCHETTTLER, DIRECTOR OF UNDERGRADUATE STUDIES, WEST  
 CAMPUS, AND SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSORS HART AND  
 THOMPSON; ASSOCIATE PROFESSOR LABARRE; ASSISTANT PROFESSORS  
 WHITRIDGE AND ROY; MR. MCNURLEN

91-92. GENERAL SOCIOLOGY.—6 s.h.

PROFESSOR JENSEN; ASSOCIATE PROFESSOR SCHETTTLER; ASSISTANT  
 PROFESSORS ROY AND WHITRIDGE; MR. MCNURLEN

101. GENERAL SOCIOLOGY.—5 s.h.

ASSISTANT PROFESSOR ROY

## I. ANTHROPOLOGY

111. GENERAL ANTHROPOLOGY.—3 s.h. ASSOCIATE PROFESSOR LABARRE

112. CULTURAL ANTHROPOLOGY.—3 s.h. ASSOCIATE PROFESSOR LABARRE

212. PRIMITIVE RELIGION.—Prerequisite: course 91-92, or 111 or 112 3 s.h.  
 [To be offered fall semester of 1953-54] ASSOCIATE PROFESSOR LABARRE

213. PERSONALITY AND SOCIETY.—Prerequisite: course 91-92, or 101, or 111  
 or 112. 3 s.h. ASSOCIATE PROFESSOR LABARRE  
 [Admission only by consultation with the instructor.]

214. PERSONALITY AND CULTURE.—Prerequisite: course 213. 3 s.h.  
 ASSOCIATE PROFESSOR LABARRE  
 [Admission only by consultation with the instructor.]

215. THE AMERICAN INDIAN.—3 s.h. ASSOCIATE PROFESSOR LABARRE

217. THE PEOPLES OF AFRICA, ASIA, AND OCEANIA.—3 s.h.  
 ASSOCIATE PROFESSOR LABARRE

## II. COMMUNITY, RACE AND CULTURE

(Courses 91-92, or 101, or 111, or 112 prerequisite for all courses.)

133. SOCIOLOGY OF THE SOUTH.—3 s.h. PROFESSOR THOMPSON

134. HUMAN ECOLOGY.—3 s.h. PROFESSOR THOMPSON  
 [Not offered in 1953-54]

136. HUMAN MIGRATION.—3 s.h. PROFESSOR THOMPSON  
 [Not offered in 1953-54]

137. THE NEGRO IN AMERICA.—3 s.h. PROFESSOR THOMPSON

233. RURAL SOCIOLOGY.—3 s.h. PROFESSOR THOMPSON

235. URBAN SOCIOLOGY.—3 s.h. PROFESSOR THOMPSON

237. COMMUNITY AND SOCIETY.—3 s.h. PROFESSOR THOMPSON

238. RACE AND CULTURE.—3 s.h. PROFESSOR THOMPSON

## III. COLLECTIVE BEHAVIOR

(Courses 91-92, or 101, or 111 or 112 prerequisite for all courses.)

142. THE SOCIOLOGY OF DISCUSSION.—Prerequisites: either Sociology 91,  
 101, or 111, or 112, and six hours to be from history, political science, Economics  
 105 and 155, and Education 115 and 176. 3 s.h. PROFESSOR HART

149. INTRODUCTION TO CHILD WELFARE.—3 s.h. PROFESSOR JENSEN

243. SOCIAL ATTITUDES AND COLLECTIVE BEHAVIOR.—3 s.h.  
 ASSOCIATE PROFESSOR SCHETTTLER

246. PUBLIC OPINION AND PROPAGANDA.—3 s.h.  
 ASSOCIATE PROFESSOR SCHETTTLER

249. CHILD WELFARE.—3 s.h. PROFESSOR HART  
 [Offered in Summer Session]
250. MARRIAGE AND THE FAMILY.—3 s.h. PROFESSOR HART

## IV. SOCIAL ORGANIZATION AND DISORGANIZATION

(Course 91-92, or 101, or 111 or 112 prerequisite for all courses.)

153. THE FIELDS OF SOCIAL WORK.—3 s.h. ASSISTANT PROFESSOR WHITRIDGE
157. SOCIAL CHANGE AND SOCIAL CONTROL.—3 s.h.  
 ASSOCIATE PROFESSOR SCETTTLER
158. SOCIOLOGY OF THE PROFESSIONS AND OCCUPATIONS.—3 s.h.  
 ASSOCIATE PROFESSOR SCETTTLER
165. INTRODUCTION TO INDUSTRIAL SOCIOLOGY.—3 s.h.  
 ASSISTANT PROFESSOR ROY
166. INDUSTRY AND SOCIETY.—3 s.h. ASSISTANT PROFESSOR ROY
262. EDUCATION AND THE CULTURAL PROCESS.—3 s.h.  
 [Not offered in 1953-54] PROFESSOR THOMPSON
271. SOCIAL PATHOLOGY.—3 s.h. PROFESSOR JENSEN
273. SPECIAL PROBLEMS IN SOCIAL PATHOLOGY.—1 to 3 s.h. *each semester.*  
 PROFESSOR JENSEN
276. CRIMINOLOGY.—3 s.h. PROFESSOR JENSEN
277. JUVENILE DELINQUENCY.—3 s.h.  
 [Not offered in 1953-54]

## V. SOCIAL THEORY

(Course 91-92, or 101, or 111 or 112 prerequisite for all courses.)

286. SOCIAL ETHICS.—3 s.h. PROFESSOR HART
288. CONTEMPORARY PROBLEMS IN CULTURAL LAG.—3 s.h.  
 PROFESSOR HART

## VI. METHODS OF SOCIAL RESEARCH

(Course 91-92, or 101, or 111 or 112 prerequisite for all courses.)

191. PRINCIPLES OF SOCIAL CASE INVESTIGATION.—3 s.h.  
 ASSISTANT PROFESSOR WHITRIDGE
193. BASIC STATISTICAL METHODS IN SOCIOLOGY.—3 s.h.  
 PROFESSOR HART
292. STATISTICAL TECHNIQUES IN SOCIOLOGY.—3 s.h.  
 PROFESSOR HART
293. SPECIAL PROBLEMS IN SOCIAL STATISTICS.—1 to 3 s.h. *each semester.*  
 PROFESSOR HART

## DEPARTMENTAL MAJOR

*Prerequisite:* Sociology 91-92 or 101.

*Major Requirements:* Eighteen semester hours of work in the Department in addition to Sociology 91-92 or 101, including at least six semester hours in Senior-Graduate courses.

*Related Work:* A minimum of eighteen semester hours, at least twelve of which are normally chosen from two of the following fields: economics, education, history, political science and psychology. Additional courses in health and physical education, philosophy and religion may also be elected as related work when indicated by the educational requirements of the student and approved by the departmental adviser. But not more than six hours work in courses primarily open to Freshmen can be counted toward this requirement.

## ZOOLOGY

PROFESSOR GRAY, CHAIRMAN; ASSOCIATE PROFESSOR BOOKHOUT, DIRECTOR OF UNDERGRADUATE STUDIES; ASSOCIATE PROFESSOR ROBERTS, SUPERVISOR OF FRESHMAN INSTRUCTION; PROFESSORS SCHMIDT-NIELSEN AND WILBUR; ASSOCIATE PROFESSORS HUNTER AND WHARTON; ASSISTANT PROFESSORS BAILEY, HORN AND NACE; DRs. BARNES, SANDEEN, VERNBERG AND WARD

## UNDERGRADUATE COURSES

1. ANIMAL BIOLOGY.—4 s.h.  
ASSOCIATE PROFESSORS HUNTER AND ROBERTS AND STAFF
2. GENERAL ZOOLOGY.—Prerequisite: Zoology 1. 4 s.h.  
ASSOCIATE PROFESSORS BOOKHOUT AND HUNTER AND STAFF
53. COMPARATIVE VERTEBRATE ANATOMY.—Prerequisites: Zoology 1, 2.  
4 s.h. ASSISTANT PROFESSOR HORN AND STAFF
92. GENERAL EMBRYOLOGY.—Prerequisite: Zoology 53. 4 s.h.  
ASSISTANT PROFESSOR HORN AND STAFF
109. EVOLUTION.—Prerequisite: two years of zoology. 3 s.h.  
ASSISTANT PROFESSOR BAILEY
110. INTRODUCTION TO GENETICS.—Prerequisite: one year of zoology.  
3 s.h. DR. VERNBERG
120. ORNITHOLOGY.—Prerequisite: one year of zoology. Zoology 53 recommended. 4 s.h.  
ASSISTANT PROFESSOR BAILEY
151. PRINCIPLES OF PHYSIOLOGY.—Prerequisites: At least a year of zoology and a year of chemistry. 4 s.h.  
PROFESSORS SCHMIDT-NIELSEN AND WILBUR
156. VERTEBRATE HISTOLOGY.—Prerequisite: Zoology 53. 4 s.h.  
ASSOCIATE PROFESSOR ROBERTS
161. ANIMAL PARASITES.—Prerequisite: one year of zoology. 4 s.h.  
ASSOCIATE PROFESSOR WHARTON
193. FUNDAMENTALS OF ZOOLOGY.—3 s.h.
- 196 SEMINAR: CURRENT DEVELOPMENTS IN ZOOLOGY.—Prerequisites: Zoology 53 and 92. 2 s.h.  
STAFF

## FOR SENIORS AND GRADUATES

202. HELMINTHOLOGY.—Prerequisite: Zoology 161. 4 s.h.  
ASSOCIATE PROFESSOR HUNTER
204. ADVANCED PARASITOLOGY.—Prerequisite: Zoology 161. 4 s.h.  
ASSOCIATE PROFESSOR WHARTON
- 219-220. SPECIAL PROBLEMS.—Not more than 4 s.h. STAFF
222. ENTOMOLOGY.—Prerequisite: One year of zoology. 4 s.h.  
PROFESSOR GRAY
224. VERTEBRATE ZOOLOGY.—Prerequisite: Zoology 53. 4 s.h.  
PROFESSOR GRAY
229. ENDOCRINOLOGY.—Prerequisites: Zoology 53, 92. 4 s.h.
238. SYSTEMATIC ZOOLOGY.—Prerequisites: Zoology 1, 2. 4 s.h.  
ASSOCIATE PROFESSOR WHARTON
252. COMPARATIVE PHYSIOLOGY.—Prerequisite: Zoology 151 or equivalent.  
4 s.h. PROFESSOR SCHMIDT-NIELSEN
253. ADVANCED VERTEBRATE MORPHOLOGY.—Prerequisites: Zoology 53.  
92. 4 s.h. ASSISTANT PROFESSOR HORN



271. CELLULAR PHYSIOLOGY.—Prerequisites: two years of biology and at least one year of chemistry. 4 s.h. PROFESSOR WILBUR

274. INVERTEBRATE ZOOLOGY.—Prerequisites: Zoology 1, 2. 4 s.h. ASSOCIATE PROFESSOR BOOKHOUT

276. PROTOZOOLOGY.—Prerequisites: Zoology, 1, 2. 4 s.h. ASSOCIATE PROFESSOR BOOKHOUT

278. INVERTEBRATE EMBRYOLOGY.—Prerequisite: Zoology 92. 4 s.h. ASSOCIATE PROFESSOR BOOKHOUT

For summer courses in Marine Biology consult the Bulletin of the Duke University Marine Laboratory.

RELATED COURSES, ONE OF WHICH MAY BE COUNTED TOWARD A  
MAJOR IN ZOOLOGY

BOTANY 101. PRINCIPLES OF HEREDITY.—3 or 4 s.h. ASSOCIATE PROFESSOR PERRY

BOTANY 202. GENETICS.—4 s.h. ASSOCIATE PROFESSOR PERRY

DEPARTMENTAL MAJOR

*Prerequisites:* Zoology 1 and 2.

*Major Requirements* (for both A.B. and B.S. degrees): A minimum of 24 s.h. of zoology including courses 53, 92, 151 or 271.

*Related Work:* At least one year of chemistry; additional work usually chosen from courses in botany, chemistry, geology, mathematics and physics.

*Language Requirements:* For A.B. degree: Preferably German or French. For B.S. degree: Both German and French.

# Courses of Instruction College of Engineering



## CIVIL ENGINEERING

PROFESSORS BIRD AND HALL; ASSOCIATE PROFESSOR SNOW; ASSISTANT PROFESSORS HAINES, LEWIS, PALMER, AND WILLIAMS; MESSRS. BROWN AND WHITE

61. PLANE SURVEYING.—Prerequisites: G.E. 1 and Math 6. 4 s.h.  
MR. BROWN
62. ADVANCED SURVEYING.—Prerequisite: C.E. 61. 4 s.h.  
MR. BROWN
108. ADVANCED STRENGTH OF MATERIALS.—Prerequisite: G.E. 107. 3 s.h.  
ASSISTANT PROFESSOR WILLIAMS  
[Offered only upon sufficient demand; enrollment limited.]
- S110. PLANE SURVEYING.—4 s.h.  
MR. BROWN
113. ROUTE SURVEYING.—Prerequisite: C.E. 61. 3 s.h.  
ASSISTANT PROFESSOR WILLIAMS
116. HIGHWAY ENGINEERING.—Prerequisites: C.E. 113, C.E. 135. 3 s.h.  
ASSISTANT PROFESSOR WILLIAMS
118. MATERIALS OF ENGINEERING.—Prerequisite: GE 107. 3 s.h.  
ASSISTANT PROFESSOR WILLIAMS
120. ENGINEERING STATISTICS.—3 s.h.  
ASSOCIATE PROFESSOR SNOW  
[Offered only upon sufficient demand; enrollment limited.]
121. HYDROLOGY.—Prerequisite: G.E. 128. 3 s.h.  
ASSOCIATE PROFESSOR SNOW  
[Offered only upon sufficient demand; enrollment limited.]
123. WATER SUPPLY AND SEWAGE.—Prerequisite: G.E. 128. 4 s.h.  
ASSOCIATE PROFESSOR SNOW
124. WATER PURIFICATION AND SEWAGE TREATMENT.—Prerequisite:  
C.E. 123. 3 s.h.  
ASSOCIATE PROFESSOR SNOW
128. INDUSTRIAL WATER SUPPLIES.—Prerequisite: Chemistry 1-2. 3 s.h.  
ASSOCIATE PROFESSOR SNOW  
[Offered only upon sufficient demand; enrollment limited.]
- 129-130. ELEMENTARY STRUCTURES.—Prerequisite: G.E. 107. 6 s.h.  
ASSISTANT PROFESSOR PALMER  
[Offered only upon sufficient demand; enrollment limited.]
131. STRUCTURES.—ANALYSIS AND ELEMENTARY DESIGN.—Prerequisites:  
G.E. 57, 107. 5 s.h.  
ASSISTANT PROFESSOR PALMER
132. STRUCTURES.—DESIGN.—Prerequisite: C.E. 131. 5 s.h.  
ASSISTANT PROFESSOR PALMER
133. REINFORCED CONCRETE.—Prerequisite: G.E. 107. 4 s.h.  
PROFESSOR BIRD
135. SOIL MECHANICS.—Prerequisite: G.E. 107. 3 s.h.  
PROFESSOR BIRD
- 137-138. SEMINAR.—2 s.h.  
ASSISTANT PROFESSOR PALMER  
[Offered only upon sufficient demand; enrollment limited.]
140. INDETERMINATE STRUCTURES.—Prerequisites: C.E. 131, C.E. 133.  
3 s.h.  
PROFESSOR BIRD

142. HYDRAULIC ENGINEERING.—Prerequisite: C.E. 128 or M.E. 105. 3 s.h.

ASSISTANT PROFESSOR WILLIAMS

[Offered only upon sufficient demand; enrollment limited.]

143-144. PROJECTS IN CIVIL ENGINEERING.—2-6 s.h.

STAFF

146. CIVIL ENGINEERING PROBLEMS.—2-3 s.h. ASSISTANT PROFESSOR PALMER

## ELECTRICAL ENGINEERING

PROFESSOR SEELEY, CHAIRMAN; ASSOCIATE PROFESSORS MEIER AND VAIL; ASSISTANT PROFESSORS EGERTON, KRAYBILL, AND OWEN

51. SURVEY OF ELECTRICAL ENGINEERING.—1 s.h.

ASSISTANT PROFESSOR KRAYBILL

52. ELECTRIC AND MAGNETIC FIELDS.—Prerequisites: E.E. 51, Mathematics

52, Physics 52, Mathematics 53 concurrently. 3 s.h. ASSOCIATE PROFESSOR VAIL

101-102. CIRCUITS IN ELECTRICAL ENGINEERING.—Prerequisites: E.E. 52, E.E. 107-108 and Mathematics 131 concurrently. 6 s.h. ASSOCIATE PROFESSOR VAIL

105. ELECTRICAL MEASUREMENTS.—Prerequisites: E.E. 52, Mathematics 131 and E.E. 101 concurrently. 4 s.h. ASSISTANT PROFESSOR OWEN

106. ELECTRON TUBES AND CIRCUITS.—Prerequisites: E.E. 101, E.E. 105, E.E. 107, E.E. 102 and E.E. 108 concurrently. 4 s.h. ASSISTANT PROFESSOR OWEN

107-108. CIRCUITS LABORATORY.—2 s.h.

ASSOCIATE PROFESSOR VAIL AND ASSISTANT PROFESSOR KRAYBILL

123. PRINCIPLES OF ELECTRIC CIRCUITS.—Prerequisites: Mathematics 52 and Physics 52. 4 s.h. ASSISTANT PROFESSORS KRAYBILL AND EGERTON

124. PRINCIPLES OF ELECTRIC MACHINERY.—Prerequisite: E.E. 123. 4 s.h. ASSISTANT PROFESSORS KRAYBILL AND EGERTON

148. DIRECT-CURRENT MACHINERY.—Prerequisites: E.E. 101 and E.E. 107, E.E. 102 and E.E. 108 concurrently. 3 s.h. ASSOCIATE PROFESSOR MEIER

158. ELECTRIC-POWER SYSTEMS.—Prerequisites: E.E. 148, M.E. 104, and permission of instructor. E.E. 257-258 concurrently. 3 s.h. PROFESSOR SEELEY

[Offered only upon sufficient demand; enrollment limited.]

159. TRANSMISSION.—Prerequisites: E.E. 101-102, E.E. 105, E.E. 106, Mathematics 131. 3 s.h. PROFESSOR SEELEY

161. HIGH-VOLTAGE PHENOMENA.—Prerequisites: E.E. 101-102, E.E. 105, E.E. 106, and permission of instructor. 3 s.h. ASSOCIATE PROFESSOR VAIL

[Offered only upon sufficient demand; enrollment limited.]

163-164. ELECTRIC MACHINERY LABORATORY. 2 s.h.

ASSOCIATE PROFESSOR MEIER

165-166. ELECTRICAL ENGINEERING SEMINAR.—2 s.h.

STAFF

171. FUNDAMENTALS OF ILLUMINATION.—Prerequisites: E.E. 101-102 or E.E. 123, and permission of instructor. 3 s.h. ASSISTANT PROFESSOR KRAYBILL

[Offered only upon sufficient demand; enrollment limited.]

173-174. PROJECTS IN ELECTRICAL ENGINEERING.—3-6 s.h.

STAFF

180. RADIO-FREQUENCY TRANSMISSION AND PROPAGATION.—Prerequisites: E.E. 159, E.E. 261, and permission of instructor. E.E. 262 concurrently. 3 s.h. ASSISTANT PROFESSOR OWEN

[Offered only upon sufficient demand; enrollment limited.]

197. INDUSTRIAL APPLICATIONS OF ELECTRICAL EQUIPMENT.—Prerequisite: E.E. 124 and permission of instructor. Elective for nonelectricals. 3 s.h. ASSOCIATE PROFESSOR MEIER

[Offered only upon sufficient demand; enrollment limited.]

198. INDUSTRIAL CONTROL.—Prerequisites: E.E. 101-102, E.E. 106, E.E. 148, E.E. 257, and permission of the instructor. E.E. 258 concurrently. 3 s.h.

ASSOCIATE PROFESSOR MEIER

[Offered only upon sufficient demand; enrollment limited.]

257-258. ALTERNATING-CURRENT MACHINERY.—Prerequisites: E.E. 101-102 and E.E. 148. 6 s.h.

ASSOCIATE PROFESSOR MEIER

261. COMMUNICATION ENGINEERING.—Prerequisites: E.E. 101-102, E.E. 105, E.E. 106, and Mathematics 131. 4 s.h.

ASSISTANT PROFESSOR OWEN

262. COMMUNICATION ENGINEERING.—Prerequisites: E.E. 261. 4 s.h.

ASSISTANT PROFESSOR OWEN

263-264. OPERATIONAL CIRCUIT ANALYSIS.—Prerequisites: E.E. 101-102, Mathematics 131, and permission of instructor. 6 s.h.

PROFESSOR SEELEY

[Offered only upon sufficient demand; enrollment limited.]

## MECHANICAL ENGINEERING

PROFESSOR R. S. WILBUR, CHAIRMAN; ASSOCIATE PROFESSOR REED; ASSISTANT PROFESSORS ELSEVIER, FULTON, HOLLAND, AND KENYON; MR. L. C. WILBUR

52. KINETICS-MECHANISM.—Prerequisites: G.E. 2, G.E. 57, Mathematics 52. 4 s.h.

ASSISTANT PROFESSORS FULTON AND HOLLAND AND MR. L. C. WILBUR

53. MATERIALS.—Prerequisite: Chemistry 2. 3 s.h.

ASSISTANT PROFESSORS ELSEVIER AND FULTON; MR. L. C. WILBUR

57. PROCESSES.—2 s.h.

ASSISTANT PROFESSOR FULTON; MR. L. C. WILBUR

101-102. ENGINEERING THERMODYNAMICS.—Prerequisites: Mathematics 52, Physics 52, Chemistry 2. 6 s.h.

PROFESSOR R. S. WILBUR AND MR. L. C. WILBUR

103-104. HEAT POWER ENGINEERING.—Prerequisites: Chemistry 2, Mathematics 52, Physics 52. 6 s.h.

ASSOCIATE PROFESSOR REED, ASSISTANT PROFESSORS

FULTON AND KENYON

105. FLUID MECHANICS.—Prerequisites: Mathematics 52, Physics 52. 3 s.h.

PROFESSOR WILBUR, ASSISTANT PROFESSOR KENYON AND MR. L. C. WILBUR

106. HEAT TRANSFER.—Prerequisites: M.E. 101 or 103, M.E. 105 or G.E. 128, M.E. 102 or 104 concurrently. 3 s.h.

ASSOCIATE PROFESSOR REED

108. AERONAUTICS.—Prerequisite: M.E. 105 3 s.h.

ASSISTANT PROFESSOR ELSEVIER

113-114. JUNIOR MECHANICAL ENGINEERING LABORATORY.—3 s.h.

PROFESSOR R. S. WILBUR AND STAFF

115-116. JUNIOR MECHANICAL ENGINEERING LABORATORY.—2 s.h.

PROFESSOR R. S. WILBUR AND STAFF

150-151. MACHINE DESIGN.—Prerequisites: G.E. 107, M.E. 52, M.E. 53, M.E. 57. 7 s.h.

ASSISTANT PROFESSOR HOLLAND

153-154. HEATING, AIR CONDITIONING AND REFRIGERATION.—Prerequisite: M.E. 106. M.E. 159-160 concurrently. 6 s.h.

ASSOCIATE PROFESSOR REED

155. INTERNAL COMBUSTION ENGINES.—Prerequisite: M.E. 101-102. 3 s.h.

ASSISTANT PROFESSOR ELSEVIER

157. CENTRIFUGAL PUMPS AND BLOWERS.—Prerequisite: M.E. 105. 3 s.h.

ASSISTANT PROFESSOR FULTON

[Offered only upon sufficient demand; enrollment limited.]

158. INDUSTRIAL ENGINEERING.—3 s.h.

ASSISTANT PROFESSORS KENYON AND LEWIS

159. SENIOR MECHANICAL ENGINEERING LABORATORY.—Prerequisite: M.E. 114, M.E. 153 concurrently. 2 s.h.

PROFESSOR R. S. WILBUR AND STAFF

160. SENIOR MECHANICAL ENGINEERING LABORATORY.—Prerequisite:  
M.E. 159. 2 s.h. PROFESSOR R. S. WILBUR AND STAFF

162. POWER PLANT CALCULATIONS.—Prerequisites: M.E. 102 or 104. 3 s.h.  
PROFESSOR R. S. WILBUR

164. ENGINEERING ANALYSIS.—3 s.h. MR. L. C. WILBUR  
[Offered only upon sufficient demand; enrollment limited.]

166. AIR-CONDITIONING DESIGN.—3 s.h. ASSOCIATE PROFESSOR REED  
[Offered only upon sufficient demand; enrollment limited.]

197-198. PROJECTS IN MECHANICAL ENGINEERING.—3-6 s.h.  
PROFESSOR R. S. WILBUR AND STAFF

## GENERAL ENGINEERING

### STAFF

1. ENGINEERING DRAWING.—2 s.h. STAFF

2. DESCRIPTIVE GEOMETRY.—Prerequisite: G.E. 1. 2 s.h. STAFF

57. STATICS.—Prerequisite: G.E. 1. Mathematics 52 concurrently. 3 s.h.  
STAFF

58. DYNAMICS.—Prerequisites: G.E. 57 and Mathematics 52. 3 s.h. STAFF

101. CONSTRUCTION METHODS.—Prerequisite: Junior standing. 3 s.h.  
[Offered only upon sufficient demand; enrollment limited.] STAFF

102. MOTION AND TIME STUDY.—Prerequisite: Junior standing. 3 s.h.  
[Offered only upon sufficient demand; enrollment limited.] STAFF

107. STRENGTH OF MATERIALS.—Prerequisites: G.E. 57, Mathematics 52.  
3 s.h. STAFF

109. STRENGTH OF MATERIALS LABORATORY.—1 s.h. STAFF

128.—HYDRAULICS.—Prerequisite: G.E. 58 or M.E. 52. 3 s.h. STAFF



# Student Life and Activities



**CONDUCT AND DISCIPLINE:** The University expects of its students loyal and hearty cooperation in developing and maintaining high standards of conduct as well as of scholarship. The University therefore reserves the right, and matriculation by the student is a concession of this right, to ask the withdrawal of any student whose conduct at any time is not satisfactory to the University, even though no specific charge be made against the student.

General oversight of the conduct of students and the administering of discipline are under the supervision of the Vice-President in the Division of Student Life. The duty of immediate supervision, guidance, and control of the students in each college is entrusted to the dean of that college. However, through the expressed willingness of the students of the University to assume the responsibility of maintaining high standards of morals and honor, the student body has properly become to a great degree self-governing. Two councils, one of men and the other of women, each composed of duly elected representatives of the student body, exercise the authority granted the students for their respective colleges to investigate all cases of misconduct, as well as all other cases of violation of proper student standards and traditions, and to make recommendations of penalties based on their findings.

The student councils have been helpful to the administrative authorities of the University. They exert a guiding and stimulating influence for the promotion of high ideals of conduct and of student relationships.

**ASSEMBLY AND CLASS MEETINGS:** The sophomore, junior and senior classes of Trinity College and the College of Engineering meet on call to discuss matters pertinent to the individual group. The freshman classes of these colleges hold weekly meetings with compulsory attendance.

In the Woman's College an assembly of all students is held on the first, second, and fifth Monday evenings; house meetings are held on third Monday evenings; and class meetings, with the exception of the freshman class, are held on fourth Monday evenings. The freshman meet as a class each week. In each instance, attendance is required.

**AUTOMOBILE REGULATIONS:** Freshmen are not permitted to own or operate motor vehicles at the University. Members of other classes in Trinity College and the College of Engineering are permitted

to operate motor vehicles provided they are registered and operated in accordance with University regulations; under the same conditions seniors in the Woman's College may use cars.

**SCHOLASTIC REGULATIONS FOR PARTICIPATION IN ATHLETIC AND OTHER ACTIVITIES:** A student who receives less than a passing grade on more than six hours of his required work of the preceding term is ineligible to represent the University in any athletic contest, concert, or other public event.

Members of athletic teams or other student groups engaging in public representation of the University are expected to be carrying their current work satisfactorily. A student may be barred from participation in such representation if, in the opinion of the dean, he fails to meet this requirement.

**RELIGIOUS LIFE:** "Eruditio et Religio," the motto emblazoned on the seal of the University, proclaims belief in the essential union of knowledge and religion in the educational process. Provisions, both academic and extra-curricular, are made for the realization of this aim.

The total religious program is under the direction of the Official Board of the Church, composed of an equal number of faculty-staff members and students. Professional guidance is given by the Preachers to the University, the Chaplain to the University, the Choir Director and the Organist, the Directors of Student Religious Life, and the denominational Chaplains.

**PUBLIC LECTURES AND SOCIAL FUNCTIONS:** The Faculty Council on Public Lectures supervises all public lectures, addresses, and other public events given under the auspices of the University or of any organization in any way connected with the University. All dates and programs must be approved by the Council, which prepares an official yearly calendar. Current announcements of public occasions appear in the Weekly Calendar of Duke University issued by the Department of Alumni Affairs.

A social committee composed of students and staff members from the three colleges exercises general supervision over major social functions. The executive offices of the committee are the Dean of Men and the Dean of Undergraduate Women of the Woman's College.

**MEDICAL CARE:** With the exceptions noted below, full medical and surgical care is furnished to all regularly matriculated students of the University. The cost is included in the general fee paid each semester and in the fees charged each student in the summer quarter.\*

The service is under the direction of the University Physician with the cooperation of the Staffs of the Infirmaries (one on each campus) and the University Hospital. It includes hospitalization in Duke Hos-

\* Only those students who have paid the fee for the semester, quarter or summer session during which illness occurs are entitled to the services described herein.

pital, as deemed necessary by the Hospital Staff but limited to thirty days: medical and surgical care under the supervision of a senior physician or surgeon; drugs, X-ray work, and ward nursing. Special nursing is not covered. The student pays for his board while in the hospital. Refraction of eyes, treatment of teeth and of all chronic and pre-existing conditions, such as diseased tonsils, hernias, pilonidal cysts and other elective surgery, chronic skin conditions, endocrine disturbances, etc., and accidents or illnesses occurring during vacations or while off the campus, are not included in this service. The cost of any necessary braces and orthopaedic appliances, as well as of special nursing, must be borne by the student and blood used for transfusions must be paid for or replaced. If the student has insurance providing hospitalization, surgical, or medical benefits, the benefits shall be applied to the cost of his medical care.

Advisory consultation with a Psychiatrist is available to the Deans and to Student Health physicians at no expense to the student but office visits for psychotherapeutic interviews cannot be included in this service.

A woman physician is in residence and a nurse in constant attendance at the Woman's College Infirmary. Patients in this Infirmary can be transferred to the Duke Hospital at any hour of the day or night. Male students receive ambulant care at the student health office in the hospital building during dispensary hours. Men are admitted to the hospital directly whenever necessary. The emergency service and the specialist consulting services of the Hospital and Medical School are always available.

When the student comes to the University, he is given a careful physical examination. Any physical defects are recorded along with the record of the questionnaire from the family physician. All students are requested to be successfully vaccinated against smallpox before admission to the University. It is urgently advised that they take typhoid vaccine if they have not done so within three years, and that all male undergraduates be actively immunized to tetanus by injections of toxoid.

**PHYSICAL EDUCATION:** Students of Trinity College and the College of Engineering are required to engage in some type of physical activity for two years or four full semesters. This work consists of participation in natural, practical, physical activity for at least three one-hour periods each week. Intramural sports are promoted and fostered in all phases of athletic activity. All students of the two colleges are eligible to enjoy the intramural privileges, provided they comply with the intramural rulings.

The work of the Physical Education Department of the Woman's College is designed in part to give the students of that college an

appreciation of the value of activity for general physical well-being, skill in one or more activities which can be enjoyed as recreation during and after college, a well-developed and well-coordinated body, and a knowledge of good posture and efficient handling of the body in everyday activities. To this end, students are allowed to choose from a large number of activities including individual, dual, and team sports, swimming, and several types of dancing. In order to insure a variety of skills, each student, during her three years of required physical education, must elect one semester's work in each of the following types of activity: individual or dual sports, and dance. All students who are unable to pass the swimming test must take one semester of swimming before graduation. In addition to the two hours per week of activity classes, all freshmen are required to take a course in orientation in physical education and body mechanics, meeting once a week during the first semester.

In order to meet certain hygienic aspects of physical education and intramural athletics, the University has made available for all students, in addition to facilities for physical activity and recreation, the following equipment and services:

1. (a) MEN. A regulation uniform: shirt, trunks, supporter, socks, sweat clothes, and towel.
- (b) WOMEN. Gym suit, dance costume, bathing suit, warm-up suit.
2. Provision for locker and handling of uniform.
3. The laundering of uniform and towel as needed.

The privileges and services listed above are available to all students who pay full fees, as long as they comply with the rules and regulations established for the care and handling of the equipment.

**THE INTERCOLLEGIATE ATHLETIC PROGRAM:** The program, controlled entirely by the University, consists of the organization and training of representative freshman and varsity teams in football, basketball, baseball, track, cross country, swimming, lacrosse, wrestling, tennis, and golf.

The program is under the supervision of the Athletic Council, composed of seven members. Three of the seven are appointed from the faculty as follows: one member from the Officers of General Administration, one from the Officers of Educational Administration, division of the Colleges, and one from the Officers of Instruction of the undergraduate colleges. From this group the President of the University appoints the faculty chairman, who serves as chairman of the Athletic Council and of its executive committee.

Four of the seven members are selected from the alumni. One of the four, a University Trustee, an alumnus, and a member of the Board's standing Committee on Physical Education and Athletics, is appointed not less frequently than every three years by the chairman of the Board of Trustees. The remaining three, who may not succeed



themselves, are elected annually by the general Alumni Association for terms of three years. The Director of Alumni Affairs serves *ex officio* as secretary of the Council and of the executive committee.

The three faculty members of the Athletic Council constitute a committee which alone has the responsibility of enforcing the scholarship and athletic requirements of the University for participation in intercollegiate sports. The athletic eligibility rules are those of the Southern Conference.

The executive committee of the Athletic Council is composed of the faculty chairman of the Council, one other faculty member of the Council and one alumni member of the Council. The executive committee of the Council recommends to the President of the University persons to serve as Director of Athletics and as coaches in the various sports. The election of such persons, however, rests solely with the Board of Trustees of the University or with its Executive Committee on recommendation of the President of the University. The executive committee of the Council recommends to the Athletic Council athletic schedules and the award of insignia of merit earned by members of the athletic teams. However, decisions with respect to the same rest solely with the Athletic Council subject to approval of the President.

Each of the four undergraduate classes selects annually, for terms of one year, a member of each respective class to serve in an advisory capacity to the Athletic Council upon call of the faculty chairman on the matter of awarding insignia of merit.

All funds arising from athletics are handled entirely by the Treasurer of the University. An audit of the receipts and disbursements of these funds is made annually by the official auditors of the University and a report thereof made annually to the Executive Committee of the Board of Trustees.

**THE STUDENT ACTIVITIES OFFICES:** The Student Activities Offices were established for the purpose of assisting and coordinating the financial activities of the various student organizations in Trinity College, the College of Engineering, and the Woman's College.

The Offices provide for student organizations a banking service through the office of the Treasurer of the University. They also afford auditing services for organizations requiring it. Permanent records of all financial activities of organizations are kept under the supervision of the Offices. The Student Activities Offices, cooperating with the University Purchasing Department, also serve in the capacity of purchasing agent for affiliated student organizations. There is no charge for this service.

In addition to these specific services, the purpose of the Office is to promote well-organized and effective extracurricular interest.

Student Activities Offices for Trinity College and the College of



Engineering are located on the West Campus, and for the Woman's College, on the East Campus.

**STUDENT PUBLICATIONS:** Student publications of the University are under the control of a Publications Board, which is constituted as follows: three members from the University staff and two from the alumni, appointed by the President; six men from the junior and senior classes, elected by the students in Trinity College and the College of Engineering; four women from the junior and senior classes, elected by the students in the Woman's College; and three editors and three managers of student publications, *ex officio* members without voting power. No student publications can be started at the University without the approval of the Council.

The three publications of campus-wide interest are the *Archive* (monthly); the *Chanticleer* (annual); the *Chronicle* (weekly). The Engineering students issue a professional bimonthly magazine, the *DukEngineer*.

**STUDENT BROADCASTING SYSTEM:** The student broadcasting system of the University is under the control of a Radio Council, which is constituted as follows: two members from the University staff, appointed by the President; three members from the faculty who serve as engineering, production, and business advisers; three men from the junior and senior classes, including one engineer, elected by the students in Trinity College and the College of Engineering; one woman from either the junior or senior class, elected by the students of the Woman's College; one man from either the junior or senior class, elected by the members of the Student Legislature of the Men's Student Government Association from within the membership of that body; one woman from either the junior or senior class, elected by the members of the Woman's Student Government Association from within the membership of that body; and four student managers of the student broadcasting system, *ex officio* members without voting power.

**STUDENT ORGANIZATIONS:** The following organizations are active on the campus: *The Men's Association of Duke University* comprises all men students in Trinity College and the College of Engineering. Through its officers and a council it initiates policies and oversees matters within the control of the student body. The council is composed of nine members: three executive officers, two representatives from the senior class, two from the junior class, one from the sophomore class, and one from the College of Engineering.

*The Woman's Student Government Association* is similar in character to the men's association. Its council is composed of the officers of the Association, house presidents and president of the Town Girls'

Club, class representatives, and chairman of the Freshman Advisory Council, *ex officio*.

*The Young Men's Christian Association* and the *Young Women's Christian Association* are branches of the national student Christian Associations. Each body aims to enrich not only the religious life of its members as individuals but also to promote religious group activity. These organizations carry on extensive activity in the fields of social service, faculty-student relations, forums, and other related projects. Membership in the Student Religious Council relates these organizations to the total religious activities program of the Duke University Church, Interdenominational.

Other organizations and activities include the following: Air Force Club; Arnold Air Society; Bench and Bar Society (Pre-Legal Undergraduates); Class of 1953; Class of 1954; Class of 1955; Class of 1956; Classical Club (Men); Club Panamericano; Commodore Club (N.R.O.T.C. Social Organization); Debate Council (Men); Duke-Charlotte Club; Duke Independent Society (Men); Duke Masonic Club; Duke Players; Duke Square Dance Club; Duke University Church (Interdenominational); Duke University Handbook, and Directory; Duke University Steering Committee; Engineers' Club; G. O. Politan Club; Graduate Club; Hoof 'n' Horn; Interfraternity Council; Intramural Athletic Department; Men's Freshman Advisory Council; Pegram Chemistry Club; Pep Board; Photography Club; Pre-Medical Society; Publications Board; Quadrangle Pictures; Shoe and Slipper Club; Spring Frolic Fund; Student Religious Council; Town Boys' Club; Town Girls' Club; Woman's College Student Forum; Women's Athletic Association; Women's Freshman Advisory Council; Women's Pan-Hellenic Council; Young Democrats Club; and the Campus Chest Fund.

The following honorary orders and fraternities have chapters on the campus: National—Alpha Kappa Psi (Economics); Alpha Phi Omega (Scouting); Chi Delta Phi (Literary); Delta Phi Alpha (German); Eta Sigma Phi (Classics); Kappa Chi (Pre-Ministerial); Kappa Delta Pi (Educational); Mu Sigma (Psychology); Omicron Delta Kappa (Leadership—Men); Phi Beta Kappa (Scholarship); Phi Eta Sigma (Freshman Scholarship—Men); Phi Sigma (Biology); Pi Gamma Mu (Social Science); Pi Mu Epsilon (Mathematics); Sigma Delta Pi (Spanish) Sigma Pi Sigma (Physics); Sigma Xi (Science); Tau Kappa Alpha (Forensic); Tau Psi Omega (French); Theta Alpha Phi (Dramatic).

Local—Beta Omega Sigma (Leadership—Sophomore Men); Delta Phi Rho Alpha (Athletic—Women); Ivy (Scholarship—Freshmen Women); Mu Sigma (Psychology); Phi Kappa Delta (Leadership—Women); Red Friars (Leadership—Senior Men); Sandals (Leader-

ship—Sophomore Women); Varsity "D" Club (Athletic—Men); White Duchy (Leadership—Senior Women).

Engineering (Professional)—American Institute of Electrical Engineers; the American Society of Civil Engineers; and the American Society of Mechanical Engineers. Engineering (Honorary)—Tau Beta Pi (National Honorary Engineering Fraternity); Eta Kappa Nu (Electrical Engineering National Honorary Society); Pi Tau Sigma (Mechanical Engineering National Honorary Society); Order of St. Patrick (Leadership).

Local musical organizations available to qualified members are: Chamber Orchestra; Concert Band; Madrigal Singers; Marching Band; Men's Glee Club; Music Study Club; Symphony Orchestra; University Chapel Choir; Women's Glee Club.

The following national social fraternities have chapters on the campus: Alpha Tau Omega; Beta Theta Pi; Delta Sigma Phi; Delta Tau Delta; Kappa Alpha; Kappa Sigma; Lambda Chi Alpha; Phi Delta Theta; Phi Kappa Psi; Phi Kappa Sigma; Pi Kappa Alpha; Pi Kappa Phi; Sigma Alpha Epsilon; Sigma Chi; Sigma Nu; Sigma Phi Epsilon; Tau Epsilon Phi; Theta Chi; Zeta Beta Tau.

The following national social sororities have chapters on the campus: Alpha Chi Omega; Alpha Delta Pi; Alpha Phi; Alpha Epsilon Phi; Delta Delta Delta; Delta Gamma; Kappa Alpha Theta; Kappa Delta; Kappa Kappa Gamma; Phi Mu; Pi Beta Phi; Sigma Kappa; Zeta Tau Alpha.

## Honors and Prizes



**HONORS:** To be eligible for Honors a student must earn, during the year, credit for at least the normal load of the college in which he is registered. All semester hours on which a student receives a grade are counted in the determination of Honors. Students in the freshman, sophomore, and junior classes who earn an average of at least two and one-half quality points per semester hour are given Honors.

The degree of Bachelor of Arts or of Bachelor of Science with distinction is conferred in accordance with the following rules:

To be eligible for general Honors at graduation a student must have completed in residence a minimum of ninety semester hours. Those students who earn an average of at least two and one-half quality points per semester hour are recommended for a degree *magna cum laude*. Those who earn an average of at least two and three-fourths quality points per semester hour are recommended for a degree *summa cum laude*.

**MEDALS AND PRIZES:** Awards are listed in the *Bulletin of Undergraduate Instruction*.

## University Lectures



**THE AVERA BIBLE LECTURES:** The Avera Bible Fund has donated \$2,500 for this purpose. The income from this amount is used to establish a lectureship and to provide a collection of books on Biblical Literature.

**JOHN MCTYEIRE FLOWERS LECTURES:** The John McTyeire Flowers Lectures, established by the late B. N. Duke as a memorial to John McTyeire Flowers, a young alumnus of Trinity College who died in the Far East in 1905, were inaugurated in 1921.

**UNIVERSITY LECTURE SERIES:** The University Series of Lectures is given each year. These lectures are under the supervision of the Committee on Public Lectures of the Faculty.

**FOUNDERS DAY:** In commemoration of the signing by the late James B. Duke, on December 11, 1924, of the Indenture of Trust

creating the Duke Endowment, under which Trinity College was expanded into Duke University, appropriate exercises are held on Founders Day at the University. Various local alumni groups celebrate the anniversary in connection with their annual meetings, some of which are held on December 11 but most of which take place on other dates during the autumn.

## Alumni Organizations



**GENERAL ALUMNI ASSOCIATION:** The Alumni Association of Duke University is composed of the former students of Duke University and its predecessor, Trinity College. The Association gives its annual dinner at Commencement, at which time the annual business meeting of the Association is held.

**GENERAL ALUMNAE ASSOCIATION:** The Alumnae Association of Duke University is composed of the women graduates and former students of Duke University and its predecessor, Trinity College. The Association joins with the Alumni Association in the annual dinner at Commencement. The annual business meeting is held during Alumnae Week End.

**DUKE UNIVERSITY NATIONAL COUNCIL:** The Duke University National Council is a working body for the alumni interests and maintains a constant supervision of alumni activities. It devotes its activities and efforts to advancing the welfare of Duke University by all appropriate means. Two meetings are held each year, one at Commencement and the other in the fall. The Council is composed of representatives from the various classes, local associations, students, faculty, parents, representatives at large, honorary members, officers of the General Alumni and Alumnae Associations, and representatives from the alumni and alumnae organizations of the professional schools.

**ALUMNAE COUNCIL:** The Alumnae Council was established by the General Alumnae Association in 1925. As the working organization of the group which established it, the Council endeavors to bind more closely the alumnae and the University and to advance the interests and aims of Duke University.

**THE ALUMNI OFFICE:** The General Alumni Office was organized to promote the work of the local alumni and alumnae associations and to co-ordinate the various activities of the General Alumni and Alumnae Associations and the Duke University National Council and Alumnae Council. Eighty county and local alumni associations have been formed in North Carolina and other states.



THE ALUMNI REGISTER OF DUKE UNIVERSITY: *The Alumni Register* of Duke University is a magazine published ten months of the year by the Alumni Association in the interest of the alumni and the University. It aims to keep the alumni in touch with one another and with the University.

THE ALUMNI NEWS: *The Duke University Alumni News* is sent to all alumni six times during the year.

## Bureau of Public Information



The Bureau of Public Information is the official news agency of the University in the Department of Public Relations, and all University news emanates from this office. The Bureau maintains the University's relationship with the press and radio, and interprets the University—its faculty, its research and achievement—to the public via these media.

The Bureau also maintains individual biographical files on all faculty members and students, as well as files on all University departments and activities. Its files of clippings form a rich source of historical information of the Institution's life. In addition, the Bureau is a source of information for the many inquiries about Duke University which are received daily from all sections of the nation and from abroad.

# Gifts and Bequests



DUKE University derives its principal support from endowment funds and from miscellaneous gifts and grants. Permanently invested capital funds enable the University to offer to students academic and professional training at a fraction of its actual cost. The effectiveness of the University is determined to a large extent by its financial resources.

Gifts and bequests devoted to the improvement of the work of the University will be received and administered by the trustees in accordance with the desires of the donor.

**GIFTS.** Any kind of property, real or personal, may be the subject of a gift and only such form as is required to pass title is necessary. If the gift consists of real property, the title will be passed by deed; if it consists of cash or unregistered bonds, the gift is consummated by delivery of the property; or if stocks, by delivery of properly endorsed stock certificates. Unless restricted, the use of gifts is at the discretion of the Board of Trustees. Usually the proceeds, conservatively invested, are added to the permanent endowment of the University. The donor may, however, restrict the use of any gift and designate definitely the objects for which it shall be used. In such cases, the transfer of property would be accomplished by a letter or other documents describing in detail the objects for which the proceeds of the gift are to be used and when accepted by the University the term or conditions set out therein become binding upon it.

**BEQUESTS.** Bequests may be made to the University by an appropriate clause inserted in a will by codicil to a will already drawn. The following forms will serve as appropriate clauses for will or codicils:

## GENERAL

I give (devise; if real property) and bequeath to Duke University, a corporation existing under the laws of the State of North Carolina and located in the City and County of Durham, State of North Carolina, and its successors forever, the sum of ..... dollars (or otherwise describe the gift) for the general purposes and uses of the University at the discretion of the Board of Trustees.

## SPECIFIC

I give (devise; if real property) and bequeath to Duke University, a corporation existing under the laws of the State of North Carolina and located in the City and County of Durham, State of North Carolina, or its successors forever, the sum of ..... dollars (or otherwise

describe gift) and direct that the income therefrom shall be used for the following purposes, viz. (here describe the use desired).

### CODICIL

Having hereinbefore made my last Will and Testament dated .....

....., and being of sound mind, I hereby make, publish, and declare the following codicil thereto; (here insert clause in same form as if it had been included in body of Will). Except as hereinbefore changed, I hereby ratify, confirm and republish my said last Will and Testament.

# THE GRADUATE SCHOOL OF ARTS AND SCIENCES

Fall Semester begins September 17, 1953

Spring Semester begins February 2, 1954

# Admission



**T O GRADUATE SCHOOL.** Admission may be granted to a student who has received an A.B. or B.S. degree from an accredited institution after a four-year course of study. The undergraduate record should be well-rounded and of such quality as to give positive evidence of capacity for success in graduate study.

Before admission can be granted, the student must submit for appraisal the following documents: (a) An official transcript of all his college or graduate work, to be forwarded directly from the Registrar of his college to the Dean of the Graduate School at Duke University. (b) Two or three letters of recommendation, to be furnished by persons best qualified to judge the applicant as a prospective graduate student. According to a ruling of the Graduate School Faculty the following policy will be followed with respect to scores on the Graduate Record Examination: (a) If a student has already taken this examination, he must submit his scores for consideration by the Admissions officer; (b) under certain circumstances the Admissions officer may ask for scores on this examination before final decisions are made on the admission of the applicant; (c) some departments require the submission of these scores before final decisions are made on full admission to the Graduate School. If the other documents of the applicant are satisfactory, he may be granted "provisional" admission until the Graduate Record Examination scores are submitted and accepted. Arrangements to take this examination can usually be made through officials of the student's college, or by correspondence with the Educational Testing Service, 20 Nassau Street, Princeton, New Jersey.

**APPLICATION PROCEDURE.** A student desiring admission to the Graduate School, should request official application blanks from the Dean. These should be filled out fully and returned at the earliest moment. The other documents needed to complete the application, namely, transcripts, letters of recommendation, and Graduate Record Examination scores, must be forwarded directly from the institutions or individuals to the Dean of the Graduate School. In no case will such documents be accepted from the student.

The application and all supporting documents should be submitted to the Dean of the Graduate School not later than August 1 by those applying for the fall semester, or January 1 by those applying for the spring semester. Applications received later than these dates cannot be accorded the same review or consideration as those received



earlier. It is the student's responsibility to make certain that his application is complete and in order before the dates specified.

When the application is accepted and approved, the student will receive a letter of admission, giving the date by which he must notify the Dean of the Graduate School of his intention to enroll for the term for which he is granted admission.

Admission, once granted, is valid only for the term or year specified. Should a student be unable to enter the Graduate School at that time but wishes later to be admitted to a subsequent term, he must re-apply for admission, following the usual procedure. But he need only bring his application up to date, if he re-applies within two years of the date when he was first admitted.

### *Registration*

Once the student has received notification of his admission to the Graduate School, but not until then, he may present himself for registration. During the registration periods, announced in the *Bulletin*, he first confers with the Director of Graduate Studies of his major department, who prepares an Approval Card, listing the course work to be taken during the semester. The student then presents this Approval Card to the Graduate School, which enrolls him officially in his courses.

**WHO MUST REGISTER.** (1) All students who enter course work or residence for credit; (2) all students who have completed minimum requirements for the Ph.D. degree, but are using in their research the facilities of the University; (3) all students who wish merely to "audit" a course or courses.

**LATE REGISTRATION.** All students are expected to present themselves for registration at the time stated in the *Bulletin*. *Those registering after the close of the announced registration period will be charged a late registration fee of five dollars.*

**ADMISSION TO CANDIDACY.** Admission to the Graduate School (outlined above) must not be confused with *admission to candidacy* for a degree. No student can be considered a candidate for the A.M. degree until he has received the approbation of the major department and has passed his initial 12 semester hours of graduate courses at Duke.

After completing these, he may apply for admission to candidacy. Two conditions must have been fulfilled: (1) he must have received passing grades on all of his 12 semester hours, and (2) he must have received a grade of "G" (good) on at least 3 of the 12 semester hours for which he was enrolled. Should he not fulfill these conditions on the initial 12 semester hours, but does better work, signified by a substantial number of "G's" or better in a subsequent term, he may be granted permission then to re-apply for candidacy.

# Degrees Offered



THE Graduate School of Arts and Sciences now offers the following degrees: The Master of Arts (A.M.), The Master of Education (M.Ed.), The Doctor of Philosophy (Ph.D.), and The Doctor of Education (Ed.D.).

## *The Master of Arts Degree*

**UNDERGRADUATE PREREQUISITE:** As a prerequisite to graduate study in his major subject, the student must have completed a *minimum* of 12 semester hours of approved college courses in that subject, and 12 additional semester hours in that subject or in related work. Since some departments require more than 12 semester hours, the student should read carefully the special requirements listed by his major department, which are included as headnotes to the course offerings in the *Bulletin*.

**LANGUAGE REQUIREMENTS.** The candidate for the A.M. degree must have a reading knowledge of at least one foreign language. (The several departments reserve the right to specify which foreign languages are acceptable.) Evidence of such knowledge may be furnished in either of two ways: (1) by successfully passing an examination, officially conducted by the appropriate foreign language department at Duke University, or (2) by a transcript showing the completion of the third college year of one language, or the second college year of each of two acceptable foreign languages.

If the student must take the examination to satisfy this requirement, he may request—should he feel well qualified—the language examination required of candidates for the Ph.D. degree. By passing this examination, he may satisfy the requirements in this particular language for both degrees at one time.

**MAJOR AND MINOR SUBJECT.** In his graduate work, the student, in order to complete the course requirements for the A.M. degree, must present acceptable marks for a minimum of 24 semester hours of graduate courses. Of these, at least 12 semester hours must be in the major subject.

Outside of his major, the student must take a minimum of 6 semester hours in a minor subject, the department of the minor to be approved by his major department. The remaining 6 semester hours of the necessary 24 may be taken in either of these departments, or in another approved by the major department and by the Graduate School

Faculty. In addition to these he must present a thesis, which carries a credit of 6 semester hours. Thus, his earned credit for the degree totals a minimum of 30 semester hours.

**RESIDENCE REQUIREMENTS.** The candidate for the Master of Arts degree must spend, as a *minimum*, one full academic year in residence at Duke University. Often more time will prove necessary, depending upon the nature of the student's research problem and upon the student himself. Students who wish to complete their A.M. degree wholly by summer work must be in residence for 30 weeks, and present 30 semester hours of registered credit.

**TRANSFER OF CREDIT.** Under certain circumstances a maximum credit of 6 semester hours may be allowed for graduate courses completed elsewhere. The acceptance of credit up to this amount, however, will not reduce the minimum period of full-time registered residence at Duke University.

With the approval both of the student's major department and the Dean of the Graduate School, a student who is granted such transfer credit may be permitted to register for as much as 12 semester hours of thesis research instead of the usual 6 semester hours. Or he may be permitted to fill out his schedule with as much as 6 semester hours of further undergraduate training or 6 semester hours of required language courses on the undergraduate level. In no case will credit be allowed for extension or correspondence courses.

**TIME LIMITS FOR COMPLETION OF THE A.M. DEGREE.** The candidate for the A.M. degree must complete all of his course requirements and the thesis within a period of six calendar years from the date of his initial registration. Credits earned over a longer period of time cannot be credited toward a degree.

**THE THESIS FOR THE A.M. DEGREE.** The thesis for the A.M. degree should essentially demonstrate the student's ability to collect, arrange, interpret, and report pertinent material on his special research problem. Although a publishable document is not required, the thesis must be written in a literate style, and should exhibit the student's competence in scholarly methods and procedures.

**REGULATIONS AND PROCEDURES.** On or before November 15 of the academic year in which it is expected the degree will be conferred, the student must file with the Dean of the Graduate School, on the official form, the title of the thesis. This title must have the approval of the Director of Graduate Studies in the major department, and of the professor under whose direction the thesis will be written.

The student who completes all of his work for the degree and who expects to receive it at the regular commencement exercises in June, must so notify the Graduate School office before the March 15 preceding.

Four bound, typewritten copies of the thesis must be submitted, in approved form, to the Dean of the Graduate School on or before May 1 preceding the June commencement at which the degree will be conferred. The copies will then be distributed to the several members of the examining committee. As specified by the Graduate Faculty, the thesis must be typed on the following grades of paper: the original must be green-lined paper of at least sixteen pound weight; the three copies must be on paper of at least thirteen pound weight. Both grades must be of seventy-five per cent rag content.

**THE EXAMINING COMMITTEE AND THE EXAMINATION.** After consultation with the professor who has directed the thesis, the Dean of the Graduate School appoints an examining committee composed of the director of the thesis and two other members of the Graduate Faculty, one of whom must be from a department other than that of the major.

The candidate appears before this committee for examination, which usually is restricted to the thesis and to the major field, and which lasts for about one and one-half hours.

If the candidate successfully stands his examination, the examining committee certifies to his passing by signing the title page of the thesis. The candidate then returns the original and one carbon copy of the thesis to the Dean of the Graduate School, who deposits them in the University Library.

### *The Master of Education Degree*

**PREREQUISITE.** The degree of Master of Education is granted ordinarily only to teachers or to others engaged in educational work.

Before a student is admitted to graduate study for this degree, he should have completed, on the undergraduate level, a minimum of 18 semester hours of approved work in education, including courses in Educational Psychology, and courses in the History of Education, Educational Sociology, or School Administration.

Early in the program of his work, the student must successfully pass two examinations: (1) a test of general ability, and (2) a test designed to determine his ability to write acceptable English. The student, before the degree is conferred, must also present evidence testifying to at least two years of teaching experience, gained either before his admission to course work, or concurrently with it.

**REQUIREMENTS FOR THE DEGREE.** The M.Ed. degree may be earned either with or without the presentation of a thesis:

**WITHOUT THESIS:** Students who elect this plan must present a total of 30 semester hours of credit. Twelve hours of this required work must include the four basic courses: Education 204, 210, 217,

and 235. If a student, by examination, can demonstrate his competency in the subject matter of two of these courses, he may be granted exemption from the required work in these courses. In no case may he claim exemption from more than two.

Other requirements are: a departmental major (i.e., in Nursing Education, Elementary Education, Public School Administration, Public School Supervision, or Secondary Education) of at least 12 semester hours, and a minor of at least 6 semester hours in a department other than Education. Toward the end of his residence the student must pass a comprehensive examination on his departmental major and on the content of the four basic courses. Permission to take such examinations must be obtained from the Director of Graduate Studies of the Department of Education, and a notice of intention must be filed with him at least three weeks before the announced dates of the examination.

**WITH THESIS:** Students who elect this plan are permitted to substitute a thesis for 6 semester hours of the required course work. The first 15 semester hours (12 in the Summer Session) must be passed with a grade of "G" (good) on at least 6 semester hours, and with no grade below an "S." The student must also present a thesis subject approved by the Professor of Education who intends to direct it, and by two other members of the staff in Education, including the Director of Graduate Studies. Two of the three members of the approving committee must be permanent members of the Duke University Graduate Faculty. The title of the thesis must be filed with the Dean of the Graduate School at the same time as the titles for the A.M. theses.

In addition to the thesis, the student must present at least 24 semester hours of course credit. Of these, 6 semester hours must be earned in *two* of the basic courses in the Department: Education 204, 210, 217, or 235. Of the remaining 18 or more semester hours, 6 semester hours must constitute a minor taken outside of the Department of Education; at least 12 semester hours must be taken in the student's departmental major.

The examination on the thesis is similar to that for the Master of Arts degree.

All of the work in fulfillment of the requirements for the M.Ed. degree, whether done in Summer Sessions, or in the regular academic year, must be completed within a period of six calendar years from the date of beginning.

### *The Doctor of Philosophy Degree*

The Ph.D. degree is essentially a research degree. Although course work is a necessary part of the student's program, the mere accumulation of course credits will not be sufficient for attaining this degree.



The granting of the Ph.D. is based primarily upon the student's knowledge of a specialized field of study and upon the production of an acceptable dissertation embodying the results of original research.

Before undertaking a program of advanced work toward the Ph.D., the student should consult with the Dean of the Graduate School or the Director of Graduate Studies in his major department to determine the possibility of securing necessary instruction and supervision of research in his field of specialization.

**REQUIREMENTS FOR THE PH.D. DEGREE.** The formal requirements, discussed in detail below, for the Ph.D. degree are as follows: (1) foreign languages; (2) major and minor courses; (3) supervisory committee for program of study; (4) residence; (5) preliminary examination; (6) the dissertation; (7) the final examination.

**FOREIGN LANGUAGES.** Normally, a reading knowledge of both French and German is required. Such knowledge is evidenced by the passing of an examination conducted by the appropriate language department at Duke University, in cooperation with the student's major department.

With the permission of the major department, and with the approval of the Dean of the Graduate School, a student may be allowed to substitute for either of these another language which has a definite relation to the candidate's program of work for the Ph.D. degree. By rule of the Graduate School Faculty, language examinations must be passed before a student takes his preliminary examination. Some departments require the student to master these languages early in the graduate program.

**MAJOR AND MINOR.** The student's program of study necessarily demands substantial concentration on courses in his major department. Enough work must be taken in one department other than the major department to constitute an acceptable minor. Exceptions which permit both the major and minor within the same department are allowed only by the special permission of the Dean of the Graduate School.

**COMMITTEE TO SUPERVISE THE PROGRAM OF STUDY.** Ordinarily, during the student's third semester of graduate work a supervisory committee of five members is appointed by the Dean of the Graduate School. This committee, with the professor who is to direct the student's research serving as chairman, formulates the program of study, which is submitted to the Dean of the Graduate School for his approval. Of the five members, one must be from a department (usually the minor) other than the major department. This committee, with occasional necessary changes, serves also as the examining committee for both the preliminary and the final Ph.D. examinations.

**RESIDENCE.** The normal period of residence is not less than three full academic years beyond the B.A. or B.S. degree. A student who already has his A.M. degree may be allowed one year of residence for it, and thus will need to spend a minimum of two additional years in residence. In unusual cases, a student who has spent the first two years in residence at Duke University may be allowed to take his third year of residence at some other accredited institution. This can be done only with the approval of the major department and of the Dean of the Graduate School. It should be understood that either the first two years or the last year must be spent in actual residence at Duke. Occasionally, because of undergraduate deficiencies, a student may need to spend additional time beyond the minimum residence in preliminary courses, for which he will not receive residence credit, as a background for certain aspects of his graduate program.

Except in unusual cases, graduate work of fragmentary character taken over a long period of years, or work completed many years before the student becomes a candidate for the degree at Duke University, will not be accepted as satisfying the requirements of residence.

**CREDIT FOR SUMMER WORK.** With the approval of the major department and of the Dean of the Graduate School, credit for a maximum of one year's residence may be granted for work completed in Summer Sessions. A full schedule of summer courses, carried for six weeks, constitutes one-fifth of a year's residence credit.

**PRELIMINARY EXAMINATION.** Near the end of the second academic year of graduate work (or in special cases early in the third year) the student must take his preliminary examination, which ordinarily covers the field of both his major and minor. Conducted by his Supervisory Committee, the examination is oral, or written, or both, as determined by the Committee. *Upon passing this examination, and not until then, the student is accepted as a candidate for the Ph.D. degree.* Transfer students who may already have passed a preliminary examination at another university must nevertheless take the examination at Duke.

**PRIVILEGE OF RE-EXAMINATION.** Should the student fail the preliminary examination, he may apply, with the consent of his Supervisory Committee and of the Dean of the Graduate School, for the privilege of a second examination to be taken no sooner than six months after the date of the first. Failure on the second examination will render the student ineligible to continue his program for the Ph.D. degree at Duke University.

**THE DISSERTATION.** The dissertation is expected to be a mature and competent piece of writing, embodying the results of significant and original research. It must be, in essence, a contribution to knowledge.

The subject for the dissertation must receive the written approval of both the Director of Graduate Studies of the student's major department and of the professor who directs the dissertation. The title of the dissertation must be filed with the Dean of the Graduate School on or before October 15 preceding the June commencement at which the degree is expected to be conferred.

The dissertation must be completed to the satisfaction of the professor who directs it; and four bound, typewritten copies in approved form must be deposited with the Dean of the Graduate School on or before April 15 if the degree is to be granted at the June commencement following.

As specified by the Graduate Faculty, the dissertation must be typed on the following grades of paper: the original must be green-lined paper of at least sixteen pound weight; the three copies must be on paper of at least thirteen pound weight. Both grades must be of seventy-five per cent rag content.

The form of the title page must be approved by the major department and by the Dean of the Graduate School.

A biographical sketch of the author of the dissertation must be bound in at the end of each copy. Ten copies of a brief summary must be submitted with the dissertation.

After the final examination the original and the first carbon copy of the finally approved dissertation are returned to the Dean of the Graduate School, who deposits them in the University Library.

**DISSERTATION FEE AND PUBLICATION REQUIREMENT.** Not later than May 1 preceding the June commencement when the degree is to be conferred, the candidate must deposit with the Treasurer of the University, a dissertation fee of \$50.00. Should the dissertation be published in a form satisfactory to the professor under whom it was written, and to the Dean of the Graduate School, within a period of three years from the date of the degree, the deposit fee will be returned to the student.

Three copies of each published dissertation must be deposited with the Dean of the Graduate School, as provided by the regulation of the Graduate School Faculty. A suitable abstract or one or more articles in published form may be accepted as satisfying the publication requirements. Three copies of each of these must be deposited with the Dean of the Graduate School.

If the dissertation is not published within a three-year period under the conditions stated above, the deposit fee is forfeited and is credited to a Special Dissertation Fund, which is used for subsidizing the publication of such dissertations as are recommended by the Graduate School Faculty.

**FINAL EXAMINATION.** The final oral examination shall be

primarily on the dissertation. Questions may, however, be asked in the candidate's major field. Normally, one year must elapse between the dates of the preliminary and the final examinations.

If a student fails his final examination, he may be allowed to take it for a second time, but not sooner than six months from the date of his first. Permission to take the second examination must be obtained from the professor who directed the dissertation and from the Dean of the Graduate School. Failure to pass the second examination renders the student ineligible to continue work for the Ph.D. degree at Duke University.

### *The Doctor of Education Degree*

The Doctor of Education is a professional degree and is granted only to those who are, or intend to become, public school administrators.

**ADMISSION.** The candidate for the Ed.D. degree must meet the same requirements for admission to the Graduate School as the candidate for the Ph.D. degree. In addition to these uniform requirements, the candidate for the Ed.D. (1) must have had at least three years of experience in public school work, preferably in school administration; (2) must make a satisfactory mark on a psychological examination, and demonstrate, by examination, his ability to write good English; (3) must present strong letters of appraisal and recommendation from persons well qualified to speak with authority of his abilities; and (4) must present himself, if possible, for a personal interview. The Standing Committee on the Ed.D. degree reserves the right to insist upon an interview.

**RESIDENCE.** The residence requirements for the Ed.D. degree are the same as those for the Ph.D.

**ACCEPTABLE MARKS ON FIRST YEAR'S WORK.** In order to be considered for candidacy for the Ed.D. degree, the student must have passed all of his course work in the first year of graduate study; on at least 9 semester hours he must have made a grade of "G" or better.

**PRELIMINARY EXAMINATION.** By the end of his second year of residence the candidate for the Ed.D. degree will take a preliminary examination similar in scope to that described for the Ph.D. degree. Only after he passes this examination, will he be considered a candidate for the degree.

**DISSERTATION FEE AND PUBLICATION REQUIREMENT.** The dissertation fee and the publication requirement are the same as those for the Ph.D.

**DISSERTATION AND FINAL EXAMINATION.** The candi-



date must write a dissertation which demonstrates his ability to investigate and report on some significant phase of public school administration. The details of dissertation presentation, including its defense in a final examination, are the same as those for the Ph.D. degree.

**AWARDING OF THE DEGREE.** After the completion of the formal academic requirements for the Ed.D. degree, the candidate must devote at least one year of apprenticeship in a public school system, under conditions which assure appropriate supervision of the candidate's activities. The Standing Committee on the Ed.D. degree will decide the adequacy of this training. The degree will not be formally awarded until after the successful completion of this apprenticeship.

**PROGRAM OF WORK.** The details of the program of work are determined for each candidate by the Standing Committee for the Ed.D. degree. In general, the first year of work follows the program laid down for the M.Ed. degree. In the second and third years, work in Public School Administration is organized on the basis of seminars, rather than separate courses. This professional, specialized study accounts for about one-third of the course work. The other two-thirds is divided almost equally between the general field of Education and related work.

**MAJOR AND MINOR.** The major field is Public School Administration. The minor, or related work, amounting to at least 24 semester hours, must be taken in Economics, Political Science, and Sociology. Courses necessary for the student's program which lie outside these fields must receive the approval of the Standing Committee.

### *General Regulations*

**SIZE OF CLASSES.** Classes which carry graduate credit are limited in size to twenty-five students. In exceptional cases this regulation may be modified, but only by permission of the Executive Committee of the Graduate School Faculty on the recommendation of the department concerned.

**GRADING OF GRADUATE STUDENTS.** Grades in the Graduate School are as follows: "E," "G," "S," "F," and "Inc." "E" (exceptional) is the highest mark. "G" (good) and "S" (satisfactory) are the remaining passing marks. "F" (failing) is below passing, and "Inc." (incomplete) indicates that some portion of the student's work is missing, for a satisfactory reason, at the time the grades are made out. The professor who gives an "Inc." specifies the date by which time the student must have made up the deficiency. In no case may an extension be granted beyond one calendar year from the date the



course ended. No residence credit can be granted for that portion of a student's program which lapses because of incomplete marks.

**CHARGE FOR REQUESTED TRANSCRIPTS.** A student who wishes to transfer his credits from Duke University to another institution is entitled to one free transcript of his record. A fee of one dollar, payable in advance, is charged for each additional copy.

**TRANSFER OF GRADUATE CREDITS.** Credit for graduate course work earned at another institution will be determined only after a student has spent one semester at Duke University. After completing his first semester, the student should file a request that his credits be reviewed and a decision made.

**WITHDRAWAL FROM GRADUATE SCHOOL.** If a student wishes to withdraw from the Graduate School, he should notify both the Director of Graduate Studies in his major department and the Dean of the Graduate School.

**GRADUATE CREDIT EARNED BEFORE A.B. DEGREE IS GRANTED.** Ordinarily no credit for graduate courses earned before a student has been awarded his A.B. or B.S. degree will be allowed. However an undergraduate student at Duke University, who, at the beginning of a semester, lacks no more than 9 semester hours for fulfilling the requirements for the A.B. or B.S. degree, may obtain permission from the Dean of the Graduate School to enroll for graduate courses sufficient to bring his total program to fifteen hours a week. Such graduate courses will be credited toward the A.M. or M.Ed., provided that the student meets the requirements for admission to the Graduate School, and that he is duly registered in the Graduate School at the beginning of that term.

# Awards and Fees



## *Fellowships, Scholarships, and Assistantships*

For the encouragement and financial assistance of graduate students of high character and marked ability, Duke University has established a considerable number of fellowships, scholarships, and assistantships. The stipends for these range from \$470 to \$2,000. Holders of grants pay tuition and other fees regularly required of all graduate students.

For further details see the *Bulletin of the Graduate School of Arts and Sciences*.

## *Tuition, Fees and Expenses*

**GENERAL FEES IN THE ACADEMIC YEAR.** The following table shows the general fees and charges collected from all students. All fees for each semester are due and payable, unless otherwise specified, at the time of registration at the beginning of that semester. No student is admitted to classes until arrangements have been made with the Treasurer of the University for the settlement of fees.

Tuition, per semester.....	\$175.00
General Fee,* per semester.....	60.00
Athletic Fee, not including Federal Tax, Optional, per year, payable in the fall semester .....	10.00
Room-rent—See detailed statement below.	
Special Dissertation Fee, payable by candidates for the Ph.D. degree, on or before the May 1 preceding the granting of the degree.....	50.00

*Living accommodations.* Rooms for men are provided in the Graduate Center on the West Campus; rooms for women, in Epworth on the East Campus. Food service on both campuses is cafeteria style. For more complete information, see the *Bulletin of the Graduate School of Arts and Sciences*.

**ESTIMATED EXPENSES IN THE ACADEMIC YEAR.** The necessary expenses of a graduate student are moderate. The University dormitories and Unions provide comfortable and wholesome living conditions at a minimum cost. Incidental expenses for recreation, traveling, clothes, and other items naturally depend on the

\* General Fees, in lieu of most special charges, include the following fees: Matriculation, Medical, Library, Damage, Commencement, Diploma, and an average of the Laboratory and Materials Fees.

tastes and habits of the individual. The table below lists the necessary college expenses for one year for a full program of work:

	<i>Low</i>	<i>Moderate</i>	<i>Liberal</i>
Tuition .....	\$ 350.00	\$ 350.00	\$ 350.00
General Fee .....	120.00	120.00	120.00
Room-rent .....	125.00	150.00	200.00
Board .....	400.00	450.00	500.00
Laundry .....	25.00	30.00	35.00
Books .....	30.00	40.00	50.00
	<u>\$1,050.00</u>	<u>\$1,140.00</u>	<u>\$1,255.00</u>

Due to rising costs it may be necessary to consider some readjustment of charges. In the event of an adjustment applicants will be notified.

# Facilities for Graduate Study



## *The Libraries and Research Facilities*

Graduate students have access to the General Library and the various school and departmental libraries. Such collections total 1,085,000 volumes, including many large and significant special collections. Science laboratories are large and well equipped for general and special research in botany, zoology, physics, chemistry, and medicine. The Duke Forest of eight thousand acres provides a large practical laboratory for forest research. Through the University's co-operative sponsorship of the Oak Ridge Institute of Nuclear Studies, graduate students are able to use the facilities of the National Laboratories at Oak Ridge.

## *Graduate Study in the Summer Session*

Graduate students who wish to work toward advanced degrees in the Summer Session, particularly in Chemistry, Economics, Education, English, History, Mathematics, Religion, Sociology, Spanish, and Zoology will find a wide selection of courses offered by members of the Duke faculty and by visiting professors. Other departments ordinarily offering sequences of work leading to the A.M. degree are Botany, Political Science, and Psychology. Thesis research for advanced graduate students is available also in other departments, such as Botany, Forestry, and Physics.

Students who wish to be admitted to the Graduate School for work in the Summer Session, should make application to the Dean of the Graduate School, as well as to the Director of the Summer Session, and should return the completed application, with supporting documents, before June 1, for admission to the first term, and before July 10, for admission to the second term.

# Courses of Instruction



In general, courses with odd numbers are offered in the first semester, those with even numbers in the second semester. The courses listed under the headnote to the several departments are those planned at the date of printing the Bulletin. Occasional changes may later be necessary.

This is a condensed description of courses. For a full description, see *Bulletin of the Graduate School*.

## AESTHETICS, ART, AND MUSIC

ASSOCIATE PROFESSOR MARKMAN

No graduate degree is offered in this department, but the following courses are suggested as possible minors for students majoring in history, literature, philosophy, religion, psychology, or sociology, or in any other interested departments. In 1953-54 the courses planned are 215 and 216.

215. RELIGIOUS ART OF THE ANCIENT NEAR EAST.—3 s.h.

ASSOCIATE PROFESSOR MARKMAN

216. RELIGIOUS ART OF THE CLASSICAL WORLD.—3 s.h.

ASSOCIATE PROFESSOR MARKMAN

217. AEGEAN ART.—3 s.h.

ASSOCIATE PROFESSOR MARKMAN

218. EARLY GREEK ART.—3 s.h.

ASSOCIATE PROFESSOR MARKMAN

## DIVISION OF ANCIENT LANGUAGES AND LITERATURE

PROFESSORS CLARK, ROGERS, AND STINESPRING; ASSOCIATE PROFESSORS ROSE AND TRUESDALE;  
ASSISTANT PROFESSORS BROWNLEE AND WAY

### GREEK

FOR SENIORS AND GRADUATES

201-202. GREEK TRAGEDY.—6 s.h.

ASSOCIATE PROFESSOR TRUESDALE

203-204. HOMER.—*Odyssey*. PINDAR AND BACCHYLIDES. 6 s.h.

ASSOCIATE PROFESSOR TRUESDALE

205-206. GREEK HISTORIANS.—6 s.h.

ASSOCIATE PROFESSOR ROSE

207-208. GREEK ORATORS.—6 s.h.

ASSISTANT PROFESSOR WAY

209-210. PLATO.—6 s.h.

ASSISTANT PROFESSOR WAY

211-212. ARISTOPHANES.—6 s.h.

ASSOCIATE PROFESSOR TRUESDALE

243. ATHENIAN TOPOGRAPHY.—3 s.h.

ASSISTANT PROFESSOR WAY

244. GREEK EPIGRAPHY.—3 s.h.

ASSISTANT PROFESSOR WAY

245. GREEK DIALECTS.—3 s.h.

ASSISTANT PROFESSOR WAY

246. GREEK HISTORICAL INSCRIPTIONS.—3 s.h.

ASSISTANT PROFESSOR WAY

247-248. GREEK ARCHAEOLOGY.—6 s.h.

ASSISTANT PROFESSOR WAY

257. SOCIAL AND CULTURAL HISTORY OF THE HELLENISTIC WORLD  
FROM ALEXANDER TO AUGUSTUS.—3 s.h.

PROFESSOR ROGERS



## FOR GRADUATES

The more advanced work of the graduate department is done in the seminar. One author or group of authors forms the center of study each year. Seminars are offered in ARISTOPHANES (301-302), THE GREEK HISTORIANS (303-304), THE ATTIC ORATORS (305-306), and THE GREEK TRAGIC POETS (307-308). These run through a cycle of four years.

*Graduate students of Duke University may attend the American School of Classical Studies in Athens, Greece, without charge for tuition, and they are eligible to compete for the fellowships that are offered annually by the School. These consist of two fellowships in Greek archaeology, and one in the language, literature, and history of ancient Greece, each with a stipend of \$2,000. They are awarded mainly on the basis of examinations held in the beginning of February of each year.*

## LATIN AND ROMAN STUDIES

## FOR SENIORS AND GRADUATES

201. ROMAN FICTION.

202. LATIN CHRISTIAN WRITERS.

203-204. ROMAN EPIC: ENNIUS, VERGIL, MANILIUS, LUCAN, FLACCUS, STATIUS, SILIUS.—6 s.h.

205-206. ROMAN DRAMA: PLAUTUS, TERENCE, SENECA.—6 s.h.

207-208. ROMAN PHILOSOPHY.

211-212. ROMAN ORATORY.—6 s.h.

PROFESSOR ROGERS

258. SOCIAL AND CULTURAL HISTORY OF THE GRAECO-ROMAN WORLD.—3 s.h.

PROFESSOR ROGERS

281-282. ROMAN HISTORICAL LITERATURE.

283-284. ROMAN LAW.—6 s.h.

PROFESSOR ROGERS

## FOR GRADUATES

309-310. SIGHT READING AND COMPOSITION.—6 s.h.

ASSOCIATE PROFESSOR ROSE

311-312. LATIN EPIGRAPHY.—6 s.h.

PROFESSOR ROGERS

SEMINARS: CATULLUS (301-302), ROMAN HISTORIANS (331-332), ROMAN PROVINCIAL ADMINISTRATION (341-342), THE REIGN OF TIBERIUS (343-344), MARTIAL (351-352), HORACE (361-362), LUCRETIUS (371-372), and CICERO'S PUBLIC CAREER (391-392).

## LINGUISTICS

## FOR GRADUATES

375-376. GREEK AND LATIN LINGUISTICS.—6 s.h.

ASSOCIATE PROFESSOR ROSE

385-386. ELEMENTARY SANSKRIT.—6 s.h.

ASSOCIATE PROFESSOR ROSE

## SEMITICS

The courses planned for 1953-54 are 201-202, 207-208, 309.

## FOR SENIORS AND GRADUATES

201-202. FIRST HEBREW.—6 s.h.

PROFESSOR STINESPRING

205-206. ELEMENTARY ARABIC.—6 s.h.

PROFESSOR STINESPRING

207-208. SECOND HEBREW.—6 s.h.

ASSISTANT PROFESSOR BROWNLEE

## FOR GRADUATES

304. ARAMAIC.—3 s.h.

PROFESSOR STINESPRING

305. THIRD HEBREW.—3 s.h. PROFESSOR STINESPRING  
 307. SYRIAC.—3 s.h. PROFESSOR STINESPRING  
 309. HISTORY OF THE ANCIENT NEAR EAST.—3 s.h. PROFESSOR STINESPRING

## RELATED COURSES IN OTHER DEPARTMENTS

Philosophy 217, Religion 217, 218, 220, 313, 316, 318.

Under the terms of a co-operative agreement graduate students of Duke University may, with the approval of the chairman of their major department, take any graduate course offered by the Departments of Greek and Latin of the University of North Carolina by the payment of a nominal fee. A list of these courses will be sent upon request.

## BOTANY

PROFESSOR BLOMQUIST, CHAIRMAN—203 BIOLOGY BUILDING; PROFESSOR KRAMER,  
 DIRECTOR OF GRADUATE STUDIES—04 BIOLOGY BUILDING; PROFESSORS  
 HARRAR, OOSTING, AND WOLF; ASSOCIATE PROFESSORS ANDERSON,  
 BILLINGS, NAYLOR, AND PERRY; ASSISTANT PROFESSOR WARREN

## FOR SENIORS AND GRADUATES

202. GENETICS.—Prerequisites: one year of botany, zoology, or equivalent, and college algebra. 4 s.h. ASSOCIATE PROFESSOR PERRY  
 203. PLANT CYTOLOGY.—Prerequisites: one year of botany. 4 s.h. ASSOCIATE PROFESSOR ANDERSON  
 204. ADVANCED PLANT ANATOMY.—Prerequisites: Botany 55 or equivalent. 4 s.h.  
 216. BOTANICAL MICROTECHNIQUE.—Prerequisite: two semesters of botany. 4 s.h. ASSOCIATE PROFESSOR ANDERSON  
 221. STRUCTURE AND CLASSIFICATION OF FUNGI.—Prerequisite: two semesters of botany. 4 s.h. PROFESSOR WOLF  
 222. PHYSIOLOGY AND ECOLOGY OF FUNGI.—Prerequisite: Botany 221 or equivalent. 4 s.h. PROFESSOR WOLF  
 225-226. SPECIAL PROBLEMS.—Credits to be arranged.  
 (a) BACTERIOLOGY, MYCOLOGY, AND PLANT PATHOLOGY. PROFESSOR WOLF AND ASSISTANT PROFESSOR WARREN  
 (b) CYTOLOGY. ASSOCIATE PROFESSOR ANDERSON  
 (c) ECOLOGY. PROFESSOR OOSTING AND ASSOCIATE PROFESSOR BILLINGS  
 (d) GENETICS. ASSOCIATE PROFESSOR PERRY  
 (e) MORPHOLOGY AND ANATOMY OF HIGHER PLANTS. PROFESSORS HARRAR AND OOSTING  
 (f) MORPHOLOGY AND TAXONOMY OF LOWER GROUPS. PROFESSOR BLOMQUIST AND ASSOCIATE PROFESSOR ANDERSON  
 (g) PHYSIOLOGY. PROFESSOR KRAMER AND ASSOCIATE PROFESSOR NAYLOR  
 (i) TAXONOMY OF HIGHER GROUPS. PROFESSOR BLOMQUIST  
 252. ADVANCED PLANT PHYSIOLOGY.—Prerequisite: Botany 151 or equivalent; organic chemistry recommended. 3 s.h. ASSOCIATE PROFESSOR NAYLOR  
 253. PHYSIOLOGY OF GROWTH AND DEVELOPMENT.—Prerequisites: Botany 151 or equivalent; Organic Chemistry recommended. 3 s.h. ASSOCIATE PROFESSOR NAYLOR  
 254. PLANT WATER RELATIONS.—Prerequisite: Botany 151 or equivalent. 3 s.h. PROFESSOR KRAMER

255. ADVANCED TAXONOMY.—Prerequisite: two years of botany, including Botany 52 or equivalent. 4 s.h. PROFESSOR BLOMQUIST

256. COMMUNITY ANALYSIS AND CLASSIFICATION.—Prerequisite: Botany 156 or equivalent. 3 s.h. PROFESSOR OOSTING

257. PRINCIPLES OF PLANT DISTRIBUTION.—Prerequisite: Botany 156 or equivalent. 3 s.h. ASSOCIATE PROFESSOR BILLINGS

259. ENVIRONMENTAL MEASUREMENTS.—Prerequisite: Botany 156 or equivalent. 3 s.h. ASSOCIATE PROFESSOR BILLINGS

305. VEGETATION OF NORTH AMERICA.—Prerequisite: Botany 156 or equivalent. 3 s.h. PROFESSOR OOSTING

310. STRUCTURE AND CLASSIFICATION OF BRYOPHYTES AND PTERIDOPHYTES.—4 s.h. PROFESSOR BLOMQUIST

311. STRUCTURE AND CLASSIFICATION OF ALGAE.—4 s.h. PROFESSOR BLOMQUIST

341. METHODS IN PLANT PHYSIOLOGY.—3 s.h. PROFESSOR KRAMER AND ASSOCIATE PROFESSOR NAYLOR

359-360. RESEARCH IN BOTANY.—Credits to be arranged.  
PROFESSORS BLOMQUIST, HARRAR, KRAMER, OOSTING, WOLF;  
ASSOCIATE PROFESSORS ANDERSON, BILLINGS, NAYLOR, AND PERRY

397-398. GENERAL BOTANICAL SEMINAR.—2 s.h.  
PROFESSORS BLOMQUIST, HARRAR, KRAMER, OOSTING, WOLF; ASSOCIATE  
PROFESSORS ANDERSON, BILLINGS, NAYLOR, AND PERRY; AND ASSISTANT  
PROFESSOR WARREN

### FOREST BOTANY

FOR SENIORS AND GRADUATES

224. FOREST PATHOLOGY.—Prerequisites: Botany 1 and 2. 4 s.h. PROFESSOR WOLF

253. DENDROLOGY.—Prerequisites: one year of botany. 3 s.h. PROFESSOR HARRAR

### RELATED COURSES IN OTHER DEPARTMENTS

These related courses may be counted toward a major in botany: Forestry 257; Zoology 341.

## CHEMISTRY

PROFESSOR HOBBS, CHAIRMAN—022 CHEMISTRY BUILDING; PROFESSOR VOSBURGH, DIRECTOR OF GRADUATE STUDIES—211 CHEMISTRY BUILDING; PROFESSORS BIGELOW, GLOCKLER (VISITING LECTURER), GROSS, HAUSER, HILL, LONDON, AND SAYLOR; ASSOCIATE PROFESSORS BRADSHAW AND BROWN; ASSISTANT PROFESSOR STROBEL

FOR SENIORS AND GRADUATES

206. ELEMENTS OF THEORETICAL CHEMISTRY.—4 s.h. PROFESSORS SAYLOR AND HOBBS

215-216. ADVANCED INORGANIC CHEMISTRY.—Prerequisites: Chemistry 70, 151-152, and 261-262, or 206. 4 or 6 s.h. PROFESSORS VOSBURGH AND HILL

233. INSTRUMENTAL ANALYSIS.—Prerequisites: Chemistry 70 and one year of physics. 2 s.h. ASSISTANT PROFESSOR STROBEL; PROFESSORS HOBBS, SAYLOR, AND VOSBURGH

234. PHYSICO-CHEMICAL METHODS OF ANALYSIS.—Prerequisites: Chemistry 70 and either 261-262 or 206; either of the latter may be taken concurrently. 2 s.h. ASSISTANT PROFESSOR STROBEL; PROFESSORS HOBBS, SAYLOR, AND VOSBURGH

236. THEORY OF ANALYTICAL CHEMISTRY.—Prerequisites: Chemistry 70 and 261-262. 1 s.h. PROFESSOR VOSBURGH

251. QUALITATIVE ORGANIC ANALYSIS.—Prerequisites: Chemistry 70 and 151-152. 2 or 3 s.h. PROFESSOR HAUSER

252. ADVANCED ORGANIC PREPARATIONS.—Prerequisite: Chemistry 70 and 151-152. 2 s.h. ASSOCIATE PROFESSOR BROWN AND PROFESSOR BIGELOW

253-254. ADVANCED ORGANIC CHEMISTRY.—Prerequisites: Chemistry 70 and 151-152. 4 s.h. PROFESSORS BIGELOW AND HAUSER

261-262. PHYSICAL CHEMISTRY.—Prerequisites: Chemistry 70, 151-152, Physics 51-52 or 1-2 and Mathematics 51-52 or equivalent. 6 s.h.

PROFESSORS HOBBS AND SAYLOR

265-266. CHEMICAL PHYSICS, STATISTICAL THEORY.—6 s.h.

PROFESSOR LONDON

267-268. CHEMICAL PHYSICS. QUANTUM THEORY OF ATOMIC AND MOLECULAR STRUCTURE.—6 s.h. PROFESSOR LONDON

271. INTRODUCTION TO RESEARCH.—1 s.h. ASSOCIATE PROFESSOR BROWN

273-274. SEMINAR.—2 s.h.

PROFESSORS BIGELOW, GROSS, HAUSER, HILL, HOBBS, SAYLOR, AND VOSBURGH; ASSOCIATE PROFESSORS BRADSHER AND BROWN

275-276. RESEARCH.—3 or 6 s.h.

PROFESSORS BIGELOW, GROSS, HAUSER, HILL, HOBBS, LONDON, SAYLOR, AND VOSBURGH; ASSOCIATE PROFESSORS BRADSHER AND BROWN

#### FOR GRADUATES

303. THERMODYNAMICS.—3 s.h. PROFESSORS SAYLOR AND VOSBURGH

304. PHYSICAL CHEMISTRY OF REACTIONS.—Prerequisite: Chemistry 261-262. 3 s.h. PROFESSOR HOBBS

350. ORGANIC REACTIONS.—Prerequisites: Chemistry 251 and 253. 2 s.h. ASSOCIATE PROFESSOR BRADSHER

351-352. ADVANCED SYNTHETIC ORGANIC CHEMISTRY.—2 s.h. PROFESSORS BIGELOW AND HAUSER

363-364. ADVANCED PHYSICAL CHEMISTRY.—Prerequisites: Chemistry 261-262 and 303, or equivalent. 4 s.h. PROFESSORS HILL, HOBBS, SAYLOR, AND VOSBURGH

#### RELATED COURSES IN OTHER DEPARTMENTS

Biochemistry and Nutrition M241, M242, M341, M343-344, M349-350, M351; and Microbiology M322.

## ECONOMICS

PROFESSOR HOOVER, CHAIRMAN—320 LIBRARY; PROFESSOR SPENGLER, DIRECTOR OF GRADUATE STUDIES—322 LIBRARY; PROFESSORS BLACK, DE VYVER, HANNA, HUMPHREY, RATCLIFFORD, SIMMONS, SMITH, AND VON BECKERATH; ASSOCIATE PROFESSOR LONDON; ASSISTANT PROFESSORS CARTTER AND MCKENZIE

#### FOR SENIORS AND GRADUATES

204. ADVANCED MONEY AND BANKING.—3 s.h. PROFESSOR SIMMONS

215. ECONOMIC SYSTEMS.—3 s.h. PROFESSOR HOOVER

216. ECONOMIC FUNCTIONS OF THE STATE.—Prerequisite: Economics 215. 3 s.h. PROFESSOR HOOVER

217. POPULATION PROBLEMS AND RESOURCES.—3 s.h. PROFESSOR SPENGLER

218. BUSINESS CYCLES.—3 s.h. PROFESSOR HUMPHREY
231. THE ECONOMIC HISTORY OF EUROPE.—3 s.h. PROFESSOR SMITH
233. STATE AND LOCAL FINANCE.—3 s.h. PROFESSOR RATCHFORD
234. FEDERAL FINANCE.—3 s.h. PROFESSOR RATCHFORD
235. FISCAL POLICY.—3 s.h. PROFESSOR RATCHFORD
236. TAXATION AND GOVERNMENT FINANCE.—3 s.h. PROFESSOR RATCHFORD
- 237-238. STATISTICAL METHODS.—Prerequisite: Economics 138 or consent of the instructor. 6 s.h. PROFESSOR HANNA
240. NATIONAL INCOME.—3 s.h. PROFESSOR HANNA
- 241-242. VALUE AND DISTRIBUTION.—6 s.h. PROFESSOR SPENGLER
243. MATHEMATICAL ECONOMICS.—3 s.h. ASSISTANT PROFESSOR MCKENZIE
244. INTRODUCTION TO ECONOMETRICS.—3 s.h. ASSISTANT PROFESSOR MCKENZIE
245. PROBLEMS OF MODERN INDUSTRIALISM.—3 s.h. PROFESSOR VON BECKERATH
256. LABOR LEGISLATION AND SOCIAL INSURANCE.—3 s.h. PROFESSOR DE VYVER
257. DYNAMICS OF THE LABOR MOVEMENT.—3 s.h. ASSISTANT PROFESSOR CARTTER
258. LABOR MARKET ANALYSIS.—3 s.h. ASSISTANT PROFESSOR CARTTER
262. TRADE UNIONISM AND COLLECTIVE BARGAINING.—3 s.h. PROFESSOR DE VYVER
265. INTERNATIONAL TRADE AND FINANCE.—3 s.h.
268. COMPETITIVE VERSUS MONOPOLISTIC ENTERPRISE.—3 s.h. PROFESSOR VON BECKERATH
- 275-276. ADVANCED INDUSTRIAL ACCOUNTING AND MANAGEMENT.—6 s.h. PROFESSOR BLACK

## FOR GRADUATES

304. SEMINAR IN MONEY AND BANKING.—3 s.h. PROFESSOR SIMMONS
- 311-312. HISTORY OF POLITICAL ECONOMY.—6 s.h. PROFESSOR SPENGLER
- 313-314. SEMINAR IN ECONOMIC THEORY.—Prerequisite: Economics 241-242 or its equivalent. 6 s.h. PROFESSOR HOOVER
317. SEMINAR IN POPULATION PROBLEMS.—3 s.h. PROFESSOR SPENGLER
318. GENERAL SEMINAR IN ECONOMICS.—No credit. STAFF
319. SEMINAR IN THE THEORIES AND PROBLEMS OF ECONOMIC CHANGE.—3 s.h. PROFESSOR SPENGLER
320. SEMINAR IN BUSINESS CYCLES.—3 s.h. PROFESSOR HUMPHREY
330. SEMINAR IN PUBLIC FINANCE.—3 s.h. PROFESSOR RATCHFORD
331. RESEARCH IN ECONOMIC HISTORY: A SEMINAR.—3 s.h. PROFESSOR SMITH
343. SEMINAR IN FINANCIAL ORGANIZATION.—3 s.h. PROFESSOR RATCHFORD
355. SEMINAR IN LABOR PROBLEMS.—3 s.h. PROFESSOR DE VYVER
365. SEMINAR IN INTERNATIONAL TRADE.—3 s.h. PROFESSOR HUMPHREY
368. SEMINAR IN MARKETING PROBLEMS.—3 s.h. ASSOCIATE PROFESSOR LANDON



386. SEMINAR IN LATIN-AMERICAN ECONOMIC PROBLEMS.—3 s.h.

PROFESSOR SMITH

389. SEMINAR IN BUSINESS AND GOVERNMENT.—3 s.h.

PROFESSOR HUMPHREY

#### RELATED COURSES IN OTHER DEPARTMENTS

The following course, included in the curriculum of the School of Law, carries economics credit for economics majors:

**PUBLIC CONTROL OF BUSINESS SEMINAR.**—Intensive study of the federal anti-trust laws and their common-law background, with emphasis on the economic policies involved. 3 s.h.

PROFESSORS LIVENGOD AND SPENGLER

Attention is called to the following courses in related departments:

Forestry 277; Political Science 207.

## EDUCATION

PROFESSOR CARTWRIGHT, CHAIRMAN—1C2 WEST DUKE BUILDING; PROFESSOR BOLMEIER, DIRECTOR OF GRADUATE STUDIES—1C1 WEST DUKE BUILDING; PROFESSORS CARR, CHILDS, AND NAHM; ASSOCIATE PROFESSORS EASLEY, RUDISILL, STUMPF, AND WEITZ; ASSISTANT PROFESSORS MCLENDON AND PETTY

### ELEMENTARY EDUCATION

#### FOR SENIORS AND GRADUATES

201. TEACHING AND SUPERVISION OF ARITHMETIC.—3 s.h.

ASSISTANT PROFESSOR PETTY

207. TECHNIQUE OF TEACHING.—3 s.h.

PROFESSOR CARR

212. PSYCHOLOGY OF THE ELEMENTARY SCHOOL SUBJECTS.—3 s.h.

PROFESSOR CARR

222. THE CURRICULUM AND MATERIALS OF THE ELEMENTARY GRADES.—3 s.h.

PROFESSOR CARR

224. TEACHING THE SOCIAL STUDIES IN ELEMENTARY SCHOOLS.—3 s.h.

PROFESSOR CARTWRIGHT

226. TEACHING READING IN THE ELEMENTARY SCHOOL.—3 s.h.

ASSOCIATE PROFESSOR RUDISILL

232. SUPERVISION OF INSTRUCTION.—3 s.h.

PROFESSOR CARR

235. THE NATURE, FUNCTION, AND REORGANIZATION OF THE CURRICULUM.—3 s.h.

PROFESSORS CARR AND CARTWRIGHT

### EXPERIMENTAL EDUCATION AND EDUCATIONAL PSYCHOLOGY

#### FOR SENIORS AND GRADUATES

208A. MENTAL TESTS AND APPLICATION.—Prerequisite: course 258 or six semester hours of other work in educational psychology or psychology. 3 s.h.

ASSOCIATE PROFESSOR EASLEY

208B. PRACTICUM.—2 s.h.

ASSOCIATE PROFESSOR EASLEY

209. STATISTICAL METHODS APPLIED TO EDUCATION.—3 s.h.

ASSOCIATE PROFESSORS EASLEY AND STUMPF

210. INTRODUCTION TO EDUCATIONAL RESEARCH.—3 s.h.

ASSOCIATE PROFESSOR STUMPF

216. PSYCHOLOGICAL PRINCIPLES OF SECONDARY EDUCATION.—3 s.h.

PROFESSOR CHILDS

217. THE PSYCHOLOGICAL PRINCIPLES OF EDUCATION.—3 s.h.

ASSOCIATE PROFESSOR EASLEY

## 227. THE PSYCHOLOGY OF LEARNING: PROBLEMS.—3 s.h.

ASSOCIATE PROFESSOR EASLEY

## 258. EDUCATIONAL MEASUREMENTS.—Prerequisite: twelve semester hours in the Department, including a course in educational psychology. 3 s.h.

ASSOCIATE PROFESSOR WEITZ

## HISTORY AND PHILOSOPHY OF EDUCATION

## FOR SENIORS AND GRADUATES

## 200. INTRODUCTION TO THE PHILOSOPHY OF EDUCATION.—3 s.h.

## 204. THE SCHOOL AS AN INSTITUTION.—3 s.h.

PROFESSOR BOLMEIER

## 214. HISTORY OF EDUCATION IN THE UNITED STATES.—3 s.h.

## PUBLIC SCHOOL ADMINISTRATION

## FOR SENIORS AND GRADUATES

## 203. PRINCIPLES OF SCHOOL ADMINISTRATION.—Prerequisite: Education 103 and 88, or six semester hours of equivalent work in education. 3 s.h.

PROFESSOR BOLMEIER

## 213. PROBLEMS IN THE ORGANIZATION AND ADMINISTRATION OF THE ELEMENTARY SCHOOL.—3 s.h.

## 234. SECONDARY-SCHOOL ORGANIZATION AND ADMINISTRATION.—3 s.h.

PROFESSOR BOLMEIER

## 253. LEGAL PHASES OF SCHOOL ADMINISTRATION.—3 s.h.

PROFESSOR BOLMEIER

## 290. ADMINISTRATION OF SCHOOL PROPERTY.—3 s.h.

ASSOCIATE PROFESSOR STUMPF

## FOR GRADUATES

## 323. PUBLIC SCHOOL FINANCE.—3 s.h.

ASSOCIATE PROFESSOR STUMPF

## 330-331. PUBLIC SCHOOL ADMINISTRATION, SEMINAR I.—6 s.h. each semester.

PROFESSORS CARTWRIGHT AND BOLMEIER,  
AND ASSOCIATE PROFESSOR STUMPF

## 332-333. PUBLIC SCHOOL ADMINISTRATION, SEMINAR II.—6 s.h. each semester.

PROFESSOR BOLMEIER AND  
ASSOCIATE PROFESSOR STUMPF

## SECONDARY EDUCATION AND EDUCATIONAL SOCIOLOGY

## FOR SENIORS AND GRADUATES

## 205. CURRICULUM PROBLEMS IN SECONDARY EDUCATION.—3 s.h.

PROFESSOR CARTWRIGHT

## 206. SOCIOLOGICAL FOUNDATIONS OF THE SECONDARY SCHOOL SUBJECTS.—Prerequisite: six semester hours in Education, including course 105, or Sociology 104, or its equivalent. 3 s.h.

PROFESSOR CHILDS

## 215. EDUCATIONAL AND VOCATIONAL GUIDANCE.—Prerequisite: twelve semester hours in the Department, including course 105 or course 206. 3 s.h.

PROFESSOR CHILDS

## 225. THE TEACHING OF HISTORY AND THE SOCIAL STUDIES.—3 s.h.

PROFESSOR CARTWRIGHT

## 236. TEACHING READING IN THE SECONDARY SCHOOL.—3 s.h.

ASSOCIATE PROFESSOR RUDISILL

## 255. GUIDANCE FUNCTIONS OF THE CLASSROOM TEACHER.—Prerequisites: 12 s.h. of work, either in education or in a combination of education and psychology, or in psychology. 3 s.h.

ASSOCIATE PROFESSOR WEITZ

## NURSING EDUCATION

310. NURSING EDUCATION: ORGANIZATION AND ADMINISTRATION  
IN NURSING SCHOOLS.—4 s.h. PROFESSOR NAHM

311. NURSING EDUCATION: PROBLEMS OF PERSONNEL ADMINISTRATION  
IN NURSING.—4 s.h. PROFESSOR NAHM

312. NURSING EDUCATION: RESEARCH PROBLEMS.—4 s.h.  
PROFESSOR NAHM

## METHODOLOGY OF RESEARCH

## FOR GRADUATES

301. METHODS OF EDUCATIONAL RESEARCH: SEMINAR.—3 s.h.  
PROFESSORS CARR, CHILDS, AND BOLMEIER,  
AND ASSOCIATE PROFESSOR STUMPF

## RELATED COURSES IN OTHER DEPARTMENTS

FOR MAJORS IN EDUCATIONAL PSYCHOLOGY, ELEMENTARY EDUCATION,  
AND SECONDARY EDUCATION

Philosophy 208, 242; Psychology 206, 209, 212, 215, 226, 306, 309, 310; Sociology  
249, 381, 382.

## FOR MAJORS IN PUBLIC SCHOOL ADMINISTRATION

Economics 217, 233, 234, 236; Political Science 209, 230, 231, 241-242, 291, 292;  
Sociology 233, 235, 237, 243, 246.

## FOR MAJORS IN HISTORY AND PHILOSOPHY OF EDUCATION

History 209-210; Philosophy 205, 208, 223; Religion 395, 396; Sociology 286, 381,  
382.

## ENGLISH

PROFESSOR IRVING, CHAIRMAN—265 WEST DUKE BUILDING; PROFESSOR BAUM, DIRECTOR OF  
GRADUATE STUDIES—402 LIBRARY; PROFESSORS BOYCE, BRINKLEY, GILBERT,  
GOHDES, HUBBELL, AND WARD; VISITING PROFESSOR ERDMAN

## FOR SENIORS AND GRADUATES

201-202. ANGLO-SAXON.—6 s.h. PROFESSOR BAUM

203-204. CHAUCER.—6 s.h. PROFESSOR BAUM

205-206. MIDDLE ENGLISH.—6 s.h. PROFESSOR BAUM

215-216. ELIZABETHAN DRAMA.—6 s.h. PROFESSOR GILBERT

217. MILTON.—3 s.h. PROFESSOR GILBERT

218. SPENSER.—3 s.h. PROFESSOR GILBERT

219-220. THE EIGHTEENTH CENTURY.—6 s.h. PROFESSOR IRVING

221-222. ENGLISH LITERATURE OF THE EARLY NINETEENTH CEN-  
TURY.—6 s.h. VISITING PROFESSOR ERDMAN

223-224. ENGLISH LITERATURE OF THE LATER NINETEENTH CEN-  
TURY.—6 s.h. PROFESSOR BAUM

227. LITERARY CRITICISM.—3 s.h. PROFESSOR GILBERT

229-230. AMERICAN LITERATURE, 1800-1870.—6 s.h. PROFESSOR HUBBELL

232. WHITMAN.—3 s.h. PROFESSOR GOHDES

233-234. AMERICAN LITERATURE SINCE 1870.—6 s.h. PROFESSOR GOHDES

237. ENGLISH DRAMA, 1642-1800.—3 s.h. PROFESSOR WARD

239. SHAKESPEARE.—3 s.h. PROFESSOR GILBERT

241. STUDIES IN DRYDEN.—3 s.h.

PROFESSOR WARD

245. THE EIGHTEENTH-CENTURY NOVEL.—3 s.h.

PROFESSOR BOYCE

251-252. ENGLISH LITERATURE OF THE SEVENTEENTH CENTURY.—  
6 s.h.

PROFESSOR WARD

269-270. SOUTHERN LITERATURE.—6 s.h.

PROFESSOR HUBBELL

## FOR GRADUATES

349-350. SEMINAR COURSES.—6 s.h.

(a) SIXTEENTH AND SEVENTEENTH CENTURIES.

PROFESSORS GILBERT AND WARD

(b) EIGHTEENTH CENTURY.

PROFESSORS IRVING AND BOYCE

(c) EARLY NINETEENTH CENTURY.

VISITING PROFESSOR ERDMAN

(d) LATER NINETEENTH CENTURY.

PROFESSOR BAUM

(e) AMERICAN LITERATURE.

PROFESSORS HUBBELL AND GOHDES

359-360. RESEARCH COURSES.—3 or 6 s.h.

STAFF

## FORESTRY

PROFESSOR KORSTIAN, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES—308 SOCIAL  
SCIENCE; PROFESSORS COILE, HARRAR, KRAMER, SCHUMACHER, AND  
WOLF; ASSOCIATE PROFESSOR ANDERSON

## FOR SENIORS AND GRADUATES

224. FOREST PATHOLOGY.—Prerequisites: Botany 1 and 2, and Forestry 253,  
or equivalent. 4 s.h.

PROFESSOR WOLF

231. FOREST ENTOMOLOGY.—3 s.h.

ASSOCIATE PROFESSOR ANDERSON

251. SAMPLING METHODS IN FORESTRY.—Prerequisite: Forestry S151.  
3 s.h.

PROFESSOR SCHUMACHER

252. FOREST MENSURATION.—Prerequisite: Forestry 251. 3 s.h.

PROFESSOR SCHUMACHER

253. DENDROLOGY.—Prerequisite: one year of botany. 3 s.h.

PROFESSOR HARRAR

257. DESIGN OF FORESTRY EXPERIMENTS AND ANALYSIS OF DATA.—  
5 s.h.

PROFESSOR SCHUMACHER

259. PROPERTIES OF WOOD.—Prerequisites: Forestry 259, one year of college  
chemistry; one course in college physics. 3 s.h.

PROFESSOR HARRAR

260. WOOD ANATOMY.—Prerequisites: one year of botany. 3 s.h.

PROFESSOR HARRAR

261. FOREST SOILS.—Prerequisites: Chemistry 1 and 2, and Physics 1, or equiva-  
lents; physical geology, mineralogy, petrology, and analytical chemistry are also  
desirable. 3 s.h.

PROFESSOR COILE

264. SILVICS.—3 s.h.

PROFESSOR KORSTIAN

275. FORESTRY POLICY.—2 s.h.

277. ECONOMICS OF FORESTRY.—Prerequisite: at least one course in the  
principles of economics. 3 s.h.

## FOR GRADUATES

323-324. ADVANCED FOREST PATHOLOGY.—Prerequisites: plant physiology  
and forest pathology. Credits to be arranged.

PROFESSOR WOLF

326. ADVANCED FOREST SOILS.—Prerequisites: analytical chemistry and For-  
estry 261. 3 s.h.

PROFESSOR COILE

351-352. ADVANCED PHYSIOLOGY OF FOREST TREES.—Prerequisites: plant physiology and plant ecology or silvics. Credits to be arranged. PROFESSOR KRAMER

356. COMPARATIVE FOREST VALUATION.—Prerequisite: Forestry 277 or equivalent: courses in economic theory are desirable. 2 s.h.

357-358. RESEARCH IN FORESTRY.—Credits to be arranged.

a. SILVICS.—Prerequisites: Forestry 253, 261, and 264, or equivalents.

PROFESSOR KORSTIAN

b. FOREST SOILS.—Prerequisite: Forestry 261 or equivalent. PROFESSOR COILE

e. FOREST ECONOMICS.—Prerequisite: Forestry 277 or equivalent.

f. PROPERTIES OF WOOD.—Prerequisites: Forestry 259 and 260, or equivalents. PROFESSOR HARRAR

g. FOREST MENSURATION.—Prerequisites: Forestry S15I, 251, and 252, or equivalents. PROFESSOR SCHUMACHER

h. FOREST ENTOMOLOGY.—Prerequisite: Forestry 23I or equivalent.

ASSOCIATE PROFESSOR ANDERSON

## GERMANIC LANGUAGES AND LITERATURE

PROFESSOR VOLLMER, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES—106 SOCIAL SCIENCE; ASSOCIATE PROFESSOR SHEARS

201-202. GOETHE.—6 s.h.

203-204. EIGHTEENTH CENTURY.—6 s.h.

PROFESSOR VOLLMER

205-206. MIDDLE HIGH GERMAN.—6 s.h.

PROFESSOR VOLLMER

207-208. GERMAN ROMANTICISM.—6 s.h.

PROFESSOR VOLLMER

209-210. KLEIST, GRILLPARZER, AND HEBBEL.—6 s.h.

211-212. HEINRICH HEINE.—6 s.h.

PROFESSOR VOLLMER

213-214. LITERATURE OF THE EMPIRE, 1871-1914.—6 s.h.

ASSOCIATE PROFESSOR SHEARS

### FOR GRADUATES ONLY

301-302. GOTHIC—MIDDLE HIGH GERMAN.—6 s.h.

PROFESSOR VOLLMER

303-304. GERMAN SEMINAR.—Credit to be arranged.

PROFESSOR VOLLMER AND ASSOCIATE PROFESSOR SHEARS

### RELATED COURSES IN OTHER DEPARTMENTS

The following courses in other departments are recommended to students, who are majoring in Germanics, as particularly valuable in building a proper background for Germanic studies:

(a) Graduate courses in literature or philology, offered by the ancient and modern language departments, to be selected after consultation with the Germanic Department.

(b) Graduate courses in history and philosophy, offered by those departments, to be selected after consultation with the Germanic Department.

## HISTORY

PROFESSOR SYDNOR, CHAIRMAN—101 LIBRARY; PROFESSOR CARROLL, DIRECTOR OF GRADUATE STUDIES—406 LIBRARY; PROFESSORS GLYDE, CURTISS, HAMILTON, LANNING, AND MANCHESTER; ASSOCIATE PROFESSORS FERGUSON, NELSON, PARKER, ROPP, WATSON, AND WOODY; ASSISTANT PROFESSOR STEVENS

### AMERICAN HISTORY

FOR SENIORS AND GRADUATES

203-204. THE UNITED STATES, 1850-1900.—6 s.h. ASSOCIATE PROFESSOR WOODY



205-206. THE UNITED STATES IN THE TWENTIETH CENTURY.—6 s.h.  
ASSOCIATE PROFESSOR WATSON

209-210. CONSTITUTIONAL HISTORY OF THE UNITED STATES, 1760  
TO THE PRESENT.—6 s.h. ASSISTANT PROFESSOR STEVENS

215-216. FOREIGN POLICY AND DIPLOMACY OF THE UNITED STATES.—  
6 s.h. PROFESSOR CLYDE

230. THE PORTUGUESE EMPIRE AND THE RISE OF BRAZIL.—3 s.h.  
PROFESSOR MANCHESTER

231-232. THE HISPANIC COLONIES AND REPUBLICS IN AMERICA.—6 s.h.  
PROFESSOR LANNING

233-234. THE INSTITUTIONAL, CULTURAL, AND SOCIAL HISTORY OF  
HISPANIC AMERICA.—6 s.h. PROFESSOR LANNING

263-264. AMERICAN COLONIAL HISTORY AND THE REVOLUTION,  
1606-1783.—6 s.h. ASSOCIATE PROFESSOR WOODY

#### FOR GRADUATES

307. SEMINAR IN AMERICAN POLITICAL HISTORY.—2 s.h.  
PROFESSOR SYDNOR

315. SEMINAR IN SOUTHERN HISTORY.—2 s.h. ASSOCIATE PROFESSOR WOODY

321. SEMINAR IN THE HISTORY OF SPAIN, HISPANIC AMERICA, AND  
INTER-AMERICAN RELATIONS.—2 s.h. PROFESSOR LANNING

336. POLITICAL HISTORY OF THE UNITED STATES, 1783-1860.—4 s.h.  
PROFESSOR SYDNOR

337. SOCIAL AND ECONOMIC LIFE OF THE OLD SOUTH.—4 s.h.  
PROFESSOR SYDNOR

#### EUROPE AND THE FAR EAST

##### FOR SENIORS AND GRADUATES

217-218. EUROPE SINCE 1870.—6 s.h. PROFESSOR CARROLL

221-222. THE AGE OF THE RENAISSANCE.—6 s.h.  
ASSOCIATE PROFESSOR NELSON

225-226. THE AGE OF THE REFORMATION.—6 s.h.  
ASSOCIATE PROFESSOR NELSON

227-228. EUROPE IN THE NINETEENTH CENTURY.—6 s.h.  
ASSOCIATE PROFESSOR PARKER

241-242. THE FAR EAST.—6 s.h. PROFESSOR CLYDE

243-244. THE UNITED STATES AND THE FAR EAST.—6 s.h.  
PROFESSOR CLYDE

245-246. WAR IN THE MODERN WORLD.—6 s.h. ASSOCIATE PROFESSOR ROPP

261-262. RUSSIA IN THE TWENTIETH CENTURY.—6 s.h. PROFESSOR CURTISS

267-268. THE TRANSITION FROM MEDIEVAL TO MODERN ENGLAND.—  
6 s.h. ASSOCIATE PROFESSOR FERGUSON

269-270. ENGLISH HISTORY FROM THE TUDOR PERIOD TOWARD THE  
PRESENT.—6 s.h. PROFESSOR HAMILTON

#### FOR GRADUATES

305. SEMINAR IN THE HISTORY OF ENGLAND AND THE BRITISH  
EMPIRE.—2 s.h. PROFESSOR HAMILTON

317. SEMINAR IN RECENT EUROPEAN HISTORY.—2 s.h.  
PROFESSOR CARROLL

343. SEMINAR IN THE HISTORY OF AMERICAN FOREIGN RELATIONS  
AND THE FAR EAST.—2 s.h. PROFESSOR CLYDE

## HISTORIOGRAPHY AND THE TEACHING OF HISTORY

## FOR GRADUATES

312. SEMINAR IN THE TEACHING OF HISTORY IN COLLEGE.—2 s.h.  
PROFESSOR MANCHESTER AND PROFESSOR HAMILTON
320. HISTORIOGRAPHY.—4 s.h. ASSOCIATE PROFESSOR NELSON
329. HISTORIOGRAPHY OF THE SOUTH.—4 s.h.  
ASSOCIATE PROFESSOR WOODY

## RELATED COURSES IN OTHER DEPARTMENTS

Economics 215, 216, 231, 311-312; Political Science 223, 224; Religion 309, 395,  
396; Sociology 382.

## MATHEMATICS

PROFESSOR GERGEN, CHAIRMAN—134 PHYSICS BUILDING; PROFESSOR ROBERTS, DIRECTOR OF  
GRADUATE STUDIES—230 PHYSICS BUILDING; PROFESSORS CARLITZ,  
DRESSEL, ELLIOTT, AND THOMAS

## FOR SENIORS AND GRADUATES

201. HISTORY OF MATHEMATICS.—Prerequisite: differential calculus. 3 s.h.
204. TEACHING OF MATHEMATICS.—3 s.h.
226. GALOIS THEORY OF EQUATIONS.—Prerequisite: calculus. 3 s.h.  
PROFESSOR THOMAS
- 227-228. THEORY OF NUMBERS.—Prerequisite: calculus. 6 s.h.  
PROFESSOR CARLITZ
- 229-230. ALGEBRAIC NUMBERS.—Prerequisite: theory of equations. 6 s.h.  
PROFESSOR CARLITZ
- 235-236. ABSTRACT ALGEBRA.—Prerequisite: calculus. 6 s.h.  
PROFESSOR CARLITZ
- 247-248. ARITHMETIC OF POLYNOMIALS.—Prerequisite: Mathematics 235  
or consent of the instructor. 6 s.h. PROFESSOR CARLITZ
250. HIGHER GEOMETRY.—3 s.h. PROFESSOR THOMAS
- 253-254. DIFFERENTIAL GEOMETRY.—Prerequisite: calculus. 6 s.h.  
PROFESSOR THOMAS
- 255-256. PROJECTIVE GEOMETRY.—Prerequisite: calculus. 6 s.h.  
PROFESSOR THOMAS
- 271-272. INTRODUCTORY TOPOLOGY.—Prerequisite: calculus. 6 s.h.  
PROFESSOR ROBERTS
285. MATHEMATICAL ANALYSIS FOR CHEMISTS AND PHYSICISTS.—  
Prerequisite: Mathematics 53. 3 s.h. PROFESSOR DRESSEL
286. MATHEMATICAL ANALYSIS FOR CHEMISTS AND PHYSICISTS.—  
Prerequisite: Mathematics 53. 3 s.h. PROFESSOR DRESSEL
- 291-292. THEORY OF FUNCTION.—Prerequisite: calculus. 6 s.h.  
PROFESSOR THOMAS
- FOR GRADUATES
- 301-302. ALGEBRAIC GEOMETRY.—Prerequisite: Mathematics 255-256. 6 s.h.  
PROFESSOR THOMAS
- 325-326. REAL VARIABLE.—Prerequisite: Mathematics 291-292. 6 s.h.  
PROFESSOR GERGEN

- 331-332. COMPLEX VARIABLE.—Prerequisite: Mathematics 291-292. 6 s.h.  
 333-334. ANALYTIC THEORY OF NUMBERS.—Prerequisite: Mathematics 291-292. 6 s.h. PROFESSOR CARLITZ  
 337-338. EXISTENCE THEOREMS.—Prerequisite: Mathematics 291-292. 6 s.h. PROFESSOR THOMAS  
 341-342. INTEGRAL EQUATIONS.—Prerequisite: differential equations and advanced calculus. 6 s.h. PROFESSOR ELLIOTT  
 343-344. ORDINARY DIFFERENTIAL EQUATIONS.—Prerequisite: Mathematics 291-292. 6 s.h. PROFESSOR THOMAS  
 371-372. DIMENSION THEORY.—Prerequisite: Mathematics 271-272. 6 s.h. PROFESSOR ROBERTS  
 373-374. CONTINUOUS TRANSFORMATIONS.—Prerequisite: Mathematics 271-272. 6 s.h. PROFESSOR ROBERTS

## PHILOSOPHY

PROFESSOR NEGLEY, CHAIRMAN—3-1 WEST DUKE BUILDING; PROFESSOR BAYLIS, DIRECTOR OF GRADUATE STUDIES—3-1-3 WEST DUKE BUILDING; PROFESSOR PATTERSON;  
 ASSISTANT PROFESSORS PEACH AND WELSH

### FOR SENIORS AND GRADUATES

201. PHILOSOPHY OF LITERARY ANALYSIS.—3 s.h. ASSISTANT PROFESSOR WELSH  
 203. CONTEMPORARY ETHICAL THEORIES.—3 s.h. PROFESSOR BAYLIS  
 205. THE PHILOSOPHY OF HISTORY.—3 s.h. PROFESSOR NEGLEY  
 208. POLITICAL PHILOSOPHY.—3 s.h. PROFESSOR NEGLEY  
 209. THE PHILOSOPHY OF RELIGION.—3 s.h. PROFESSOR PATTERSON  
 211. PLATO.—Undergraduate prerequisite: Philosophy 93. 3 s.h. PROFESSOR PATTERSON  
 212. HISTORY OF MODERN PHILOSOPHY.—3 s.h. ASSISTANT PROFESSOR PEACH  
 213. HISTORY OF AESTHETICS.—3 s.h.  
 217. ARISTOTLE.—Undergraduate prerequisite: Philosophy 93. 3 s.h. PROFESSOR PATTERSON  
 218. MEDIEVAL PHILOSOPHY.—3 s.h. PROFESSOR PATTERSON  
 223. CONTEMPORARY PHILOSOPHY: IDEALISM.—3 s.h. PROFESSOR NEGLEY  
 224. CONTEMPORARY PHILOSOPHY: REALISM.—3 s.h. PROFESSOR BAYLIS  
 225. BRITISH EMPIRICISM: LOCKE, BERKELEY, HUME.—3 s.h.  
 231. PHILOSOPHY OF SCIENCE.—3 s.h.  
 232. SPECIAL PROBLEMS IN THE PHILOSOPHY OF SCIENCE.—3 s.h.  
 236. ORIENTAL PHILOSOPHY.—3 s.h. PROFESSOR PATTERSON  
 241. LOGIC.—3 s.h.  
 242. SCIENTIFIC METHODOLOGY.—3 s.h.  
 250. PHILOSOPHICAL ANALYSIS.—3 s.h. PROFESSOR BAYLIS  
 251. SEMINAR: EPISTEMOLOGY.—3 s.h. PROFESSOR BAYLIS  
 252. SEMINAR: METAPHYSICS.—3 s.h. PROFESSOR BAYLIS
- ### FOR GRADUATES
307. SEMINAR: KANT.—3 s.h. PROFESSOR NEGLEY  
 308. SEMINAR: HEGEL.—3 s.h. PROFESSOR NEGLEY

- 331, 332. SPECIAL FIELDS OF PHILOSOPHY.—3 s.h. STAFF  
 350, 351. SEMINAR IN THE TEACHING OF PHILOSOPHY.—1 s.h. STAFF

## PHYSICS

PROFESSOR NIELSEN, CHAIRMAN—119 PHYSICS BUILDING; ASSOCIATE PROFESSOR GREULING,  
 ACTING DIRECTOR OF GRADUATE STUDIES—213 PHYSICS BUILDING; PROFESSORS HATLEY,  
 GORDY, NEWSON, NORDHEIM, SPONER, AND LONDON; ASSOCIATE PROFESSOR  
 FAIRBANK; ASSISTANT PROFESSORS LEWIS AND BLOCK

## FOR SENIORS AND GRADUATES

- 201-202. MECHANICS.—Prerequisite: Physics 125. 6 s.h.  
 ASSISTANT PROFESSOR BLOCK

203-204. ELECTRICITY AND MAGNETISM.—6 s.h.

205. SPECTROSCOPY.—4 s.h. PROFESSOR SPONER

- 213-214. CONTEMPORARY PHYSICS.—6 s.h. ASSISTANT PROFESSOR LEWIS

- 217-218. ADVANCED PHYSICS LABORATORY.—2-6 s.h. THE STAFF

219. INTRODUCTION TO ELECTRONICS.—4 s.h. PROFESSOR GORDY

220. ELECTRON CIRCUIT ANALYSIS.—3 s.h. PROFESSOR GORDY

- 265-266. CHEMICAL PHYSICS. STATISTICAL THEORY.—6 s.h.  
 PROFESSOR LONDON

- 267-268. CHEMICAL PHYSICS. QUANTUM THEORY OF ATOMIC AND  
 MOLECULAR STRUCTURES.—6 s.h. PROFESSOR LONDON

## FOR GRADUATES

- 303-304. THERMODYNAMICS AND STATISTICAL MECHANICS.—6 s.h.  
 ASSOCIATE PROFESSORS FAIRBANK AND GREULING

306. LOW TEMPERATURE PHYSICS.—Prerequisite: Physics 303 3 s.h.  
 ASSOCIATE PROFESSOR FAIRBANK

308. MECHANICS OF CONTINUOUS MEDIA.—Prerequisite: Physics 201-202.  
 3 s.h. PROFESSOR NORDHEIM

- 315-316. PRINCIPLES OF QUANTUM THEORY.—Prerequisite: Physics 201-  
 202. 6 s.h. PROFESSOR NORDHEIM

- 318-319. ELECTROMAGNETIC FIELD THEORY.—Prerequisite: Physics 126,  
 175. 6 s.h. ASSOCIATE PROFESSOR GREULING

320. THEORY OF ELECTRONS.—Prerequisite: Physics 318-319. 3 s.h.  
 ASSOCIATE PROFESSOR GREULING

323. THEORY OF ATOMIC SPECTRA.—3 s.h. PROFESSOR SPONER

324. THEORY OF MOLECULAR SPECTRA.—3 s.h. PROFESSOR SPONER

331. MICROWAVE RADIATION.—4 s.h. PROFESSOR GORDY

335. MICROWAVE SPECTROSCOPY.—3 s.h. PROFESSOR GORDY

340. STRUCTURE OF MATTER.—3 s.h. PROFESSOR SPONER

341. ADVANCED TOPICS IN QUANTUM THEORY.—Prerequisite: Physics 315-  
 316. 3 s.h. PROFESSOR NORDHEIM

343. NUCLEAR PHYSICS.—Prerequisite: Physics 315. 3 s.h.  
 PROFESSOR NEWSON

344. ADVANCED NUCLEAR PHYSICS.—Prerequisite: Physics 343. 3 s.h.  
 PROFESSOR NORDHEIM

- 351-352. SEMINAR.—2 s.h. STAFF

- 353-354. THESIS SEMINAR.—6 s.h. STAFF

## POLITICAL SCIENCE

PROFESSOR RANKIN, CHAIRMAN—308 LIBRARY; PROFESSOR WILSON, DIRECTOR OF GRADUATE STUDIES—405 NEW TOWER LIBRARY; PROFESSORS COLE, CONNERY, HALLOWELL, AND VON BECKERATH; VISITING PROFESSORS ROBSON, WESTPHALEN, AND ZINK

## FOR SENIORS AND GRADUATES

207. AMERICAN CONSTITUTIONAL LAW AND THEORY.—3 s.h.

PROFESSOR RANKIN

209. PROBLEMS IN STATE AND LOCAL GOVERNMENT IN THE UNITED STATES.—3 s.h.

PROFESSOR RANKIN

211. POLITICAL INSTITUTIONS OF THE FAR EAST.—3 s.h.

212. INTERNATIONAL POLITICS OF THE FAR EAST.—3 s.h.

PROFESSOR WILSON

221. INTERNATIONAL PUBLIC ORGANIZATION.—3 s.h.

223. POLITICAL THOUGHT TO THE SEVENTEENTH CENTURY.—3 s.h.

PROFESSOR WILSON

224. MODERN POLITICAL THEORY.—3 s.h.

PROFESSOR HALLOWELL

225. COMPARATIVE GOVERNMENT.—3 s.h.

PROFESSOR COLE AND VISITING PROFESSOR ROBSON

226. COMPARATIVE GOVERNMENT.—3 s.h.

PROFESSOR COLE AND VISITING PROFESSOR ZINK

227-228. INTERNATIONAL LAW.—6 s.h.

PROFESSOR WILSON

229. RECENT AND CONTEMPORARY POLITICAL THEORY.—3 s.h.

PROFESSOR HALLOWELL

230. AMERICAN POLITICAL INSTITUTIONS.—3 s.h.

PROFESSOR RANKIN

231. AMERICAN POLITICAL THEORY.—3 s.h.

PROFESSOR HALLOWELL

235. THE BRITISH COMMONWEALTH.—3 s.h.

PROFESSOR COLE AND VISITING PROFESSOR ZINK

241. ADMINISTRATIVE MANAGEMENT.—3 s.h.

PROFESSOR CONNERY

242. NATIONAL ADMINISTRATION.—3 s.h.

PROFESSOR CONNERY

246. GOVERNMENT ADMINISTRATION AND PUBLIC POLICY.—3 s.h.

PROFESSOR CONNERY

252. SPANISH-AMERICAN CONSTITUTIONALISM.—3 s.h.

271. SOCIOPOLITICS AND CAPITALISM.—3 s.h.

PROFESSOR VON BECKERATH

272. CONTEMPORARY EUROPEAN LABOR PROBLEMS.—3 s.h.

VISITING PROFESSOR WESTPHALEN

291. PROBLEMS OF MUNICIPAL GOVERNMENT.—3 s.h.

PROFESSOR RANKIN

292. MUNICIPAL ADMINISTRATION.—3 s.h.

PROFESSOR RANKIN

## FOR GRADUATES

301-302. DEPARTMENTAL GRADUATE SEMINAR.—No credit.

PROFESSORS WILSON, RANKIN, COLE, HALLOWELL, CONNERY, OTHER MEMBERS OF THE FACULTY, AND VISITING LECTURERS

310. SEMINAR IN STATE GOVERNMENT.—3 s.h.

PROFESSOR RANKIN

311. SEMINAR IN FAR EASTERN POLITICS.—3 s.h.

321. SEMINAR IN POLITICAL THEORY.—3 s.h.

PROFESSOR HALLOWELL

325. SEMINAR IN COMPARATIVE GOVERNMENT.—3 s.h.

PROFESSOR COLE

328. SEMINAR IN INTERNATIONAL LAW.—3 s.h.

PROFESSOR WILSON



341. SEMINAR IN PUBLIC ADMINISTRATION.—3 s.h. PROFESSOR CONNERY  
 372. SEMINAR IN CONTEMPORARY EUROPEAN SOCIAL PROBLEMS.—  
 2 s.h. VISITING PROFESSOR WESTPHALEN

## RELATED COURSES IN OTHER DEPARTMENTS

Economics 215, 216, 233, 234, 237-238, 365; History 215-216, 217-218, 233-234, 261-262; Philosophy 208; Religion 224, 394; Sociology 382.

## PSYCHOLOGY

PROFESSOR RODNICK, CHAIRMAN—107 BIVINS HALL; PROFESSOR ZENER, DIRECTOR OF  
 GRADUATE STUDIES—205 PSYCHOLOGICAL LABORATORY; PROFESSOR RODNICK,  
 DIRECTOR OF CLINICAL TRAINING; PROFESSORS ADAMS, DAI, KUDER, AND  
 LUNDHOLM; ASSOCIATE PROFESSORS BANHAM, KIMBLE, AND KOCH;  
 ASSISTANT PROFESSORS COHEN, COLLIER, FILER,  
 GARMEZY, AND GUTTMAN

## FOR SENIORS AND GRADUATES

- 201-202. PROSEMINAR.—9 s.h. each semester.  
 PROFESSORS ADAMS, KUDER, LUNDHOLM, RODNICK, AND ZENER;  
 ASSOCIATE PROFESSORS BANHAM, KOCH, AND KIMBLE;  
 ASSISTANT PROFESSORS COLLIER AND GUTTMAN
203. DYNAMIC PSYCHOLOGY: CONATION AND OUR CONSCIOUS LIFE.—  
 3 s.h. PROFESSOR LUNDHOLM
206. SOCIAL PSYCHOLOGY.—3 s.h. PROFESSOR ADAMS
209. EXPERIMENTAL METHODS IN PSYCHOLOGY.—3 s.h.  
 PROFESSOR ZENER AND ASSISTANT PROFESSOR GUTTMAN
212. PHYSIOLOGICAL PSYCHOLOGY.—3 s.h. ASSISTANT PROFESSOR GUTTMAN
215. DEVELOPMENTAL PSYCHOLOGY.—3 s.h. PROFESSOR ADAMS
- 221-222. PROPRACTICUM.—3 s.h. each semester.  
 ASSISTANT PROFESSOR GARMEZY AND CLINICAL STAFF
223. ABNORMAL PSYCHOLOGY.—3 s.h. PROFESSOR LUNDHOLM
224. PSYCHOLOGY OF AESTHETICS.—3 s.h. PROFESSOR LUNDHOLM
226. PSYCHOLOGY: HISTORICAL AND THEORETICAL.—3 s.h.  
 PROFESSOR ZENER
236. THEORETICAL PSYCHOLOGY.—3 s.h. ASSOCIATE PROFESSOR KOCH
265. FUNDAMENTAL STATISTICAL PROCEDURES IN PSYCHOLOGY.—  
 Prerequisite: Psychology 120 or equivalent. 3 s.h. ASSISTANT PROFESSOR COLLIER
266. ADVANCED STATISTICS OF PSYCHOLOGICAL INVESTIGATION.—  
 Prerequisite: Psychology 265. 3 s.h. ASSISTANT PROFESSOR COLLIER
305. PSYCHOPATHOLOGY.—3 s.h. PROFESSOR RODNICK
306. SEMINAR IN DEVELOPMENTAL PSYCHOLOGY.—2 or 3 s.h.  
 PROFESSOR ADAMS
308. SEMINAR IN PSYCHOPATHOLOGY AND PERSONALITY THEORY.—  
 3 s.h. PROFESSOR RODNICK
309. THEORY OF LEARNING.—3 s.h. PROFESSOR ADAMS
310. SEMINAR: SELECTED PROBLEMS IN THE DYNAMICS OF BEHAV-  
 IOR.—3 s.h. PROFESSOR ZENER
312. SEMINAR IN THEORETICAL PSYCHOLOGY.—3 s.h.  
 ASSOCIATE PROFESSOR KOCH
313. ADVANCED EXPERIMENTAL METHODS: SELECTED PROBLEMS.—  
 3 s.h. PROFESSORS RODNICK AND ZENER; ASSOCIATE PROFESSOR KOCH

320. SEMINAR IN THE THEORY OF MENTAL TESTS.—3 s.h.

PROFESSOR KUDER

322. SEMINAR IN PERSONNEL PSYCHOLOGY.—3 s.h.

PROFESSOR KUDER

335-336. CLINICAL PSYCHOLOGY PRACTICUM.—Prerequisite: Psychology 221 and 222. 3 s.h. fall semester, 6 s.h. spring semester.

ASSISTANT PROFESSOR COHEN AND CLINICAL STAFF

341. SOCIETY, CULTURE AND BEHAVIOR DISORDERS.—3 s.h.

PROFESSOR DAI

342. PRINCIPLES OF PSYCHOTHERAPY.—3 s.h.

PROFESSOR DAI

371. PRE-SCHOOL BEHAVIOR PROBLEMS.—3 s.h.

ASSOCIATE PROFESSOR BANHAM

#### RELATED COURSES IN OTHER DEPARTMENTS

Education 208A, 208B, 209, 217, 227, 228, 258, 318; Philosophy 203, 208, 223, 224, 232, 242, 301, 331-332a; Sociology 212, 238, 243, 246, 249, 271, 276, 330, 380; Zoology 229, 324, 341, 351-352, 355-356; Physiology 261-262; Anatomy 204.

### RELIGION

PROFESSOR SMITH, DIRECTOR OF GRADUATE STUDIES—308 DIVINITY SCHOOL; PROFESSORS BEACH, CLARK, CUSHMAN, DAVIES, PETRY, AND STINESPRING; ASSISTANT PROFESSORS BROWNLEE AND SCHAFER

#### FIELD I. BIBLICAL STUDIES

201-202. FIRST HEBREW.—6 s.h.

PROFESSOR STINESPRING

205-206. ARABIC.—6 s.h.

PROFESSOR STINESPRING

207-208. SECOND HEBREW.—6 s.h.

ASSISTANT PROFESSOR BROWNLEE

217. THE NEW TESTAMENT IN GREEK.—3 s.h.

PROFESSOR CLARK

218. GALATIANS AND I CORINTHIANS.—3 s.h.

PROFESSOR DAVIES

220. I PETER AND THE GOSPEL OF JOHN.—Prerequisite: 6 s.h. study of the Greek language. 3 s.h.

PROFESSOR DAVIES

301. THE RELIGIOUS THOUGHT OF POST-EXILIC JUDAISM.—3 s.h.

ASSISTANT PROFESSOR BROWNLEE

304. ARAMAIC.—3 s.h.

PROFESSOR STINESPRING

305. THIRD HEBREW.—3 s.h.

PROFESSOR STINESPRING

307. SYRIAC.—Some knowledge of Hebrew and Aramaic prerequisite. 3 s.h.

PROFESSOR STINESPRING

309. HISTORY OF THE ANCIENT NEAR EAST.—3 s.h.

PROFESSOR STINESPRING

310. OLD TESTAMENT PROPHECY.—3 s.h.

PROFESSOR STINESPRING

311. THE LIFE AND TEACHINGS OF JESUS.—3 s.h.

PROFESSOR CLARK

312. NEW TESTAMENT THEOLOGY.—3 s.h.

PROFESSOR DAVIES

313. THE APOSTOLIC FATHERS.—3 s.h.

PROFESSOR CLARK

314. PATRISTIC THOUGHT.—3 s.h.

PROFESSOR DAVIES

316. HELLENISTIC RELIGIONS.—3 s.h.

PROFESSOR CLARK

317. THE SYNOPTIC GOSPELS.—3 s.h.

PROFESSOR CLARK

318. TEXTUAL CRITICISM OF THE NEW TESTAMENT.—3 s.h.

PROFESSOR CLARK

319. PAUL AND RABBINIC JUDAISM.—3 s.h.

PROFESSOR DAVIES

## RELATED COURSES IN OTHER DEPARTMENTS

Greek 257; Latin 258; Aesthetics, Art, and Music 215, 216.

## FIELD II. STUDIES IN CHURCH HISTORY

330. THE CHURCH IN EUROPE SINCE 1800.—3 s.h. PROFESSOR PETRY  
 331. THE SOCIAL MESSAGE OF THE EARLY AND MEDIEVAL CHURCH.—  
 3 s.h. PROFESSOR PETRY  
 332. THE MEDIEVAL CHURCH.—3 s.h. PROFESSOR PETRY  
 334. CHURCH REFORMERS AND CHRISTIAN UNITY.—3 s.h.  
 PROFESSOR PETRY  
 336. HISTORY OF CHRISTIAN RENUNCIATION IN THE MIDDLE AGES.—  
 3 s.h. PROFESSOR PETRY

## RELATED COURSES IN OTHER DEPARTMENTS

History 221-222, 225-226; Ancient Languages and Literatures 257-258.

## FIELD III. STUDIES IN CHRISTIAN THOUGHT

224. CONCEPTIONS OF MAN IN WESTERN THOUGHT.—3 s.h.  
 PROFESSOR CUSHMAN  
 321. PLATONISM AND CHRISTIANITY.—3 s.h. PROFESSOR CUSHMAN  
 322. THEOLOGY AND PHILOSOPHY IN THE NINETEENTH CENTURY.—  
 3 s.h. PROFESSOR CUSHMAN  
 323. HISTORY OF CHRISTIAN THOUGHT I.—3 s.h.  
 ASSISTANT PROFESSOR SCHAFER  
 324. HISTORY OF CHRISTIAN THOUGHT II.—3 s.h.  
 ASSISTANT PROFESSOR SCHAFER  
 325. PHILOSOPHICAL THEOLOGY I.—3 s.h. PROFESSOR CUSHMAN  
 326. PHILOSOPHICAL THEOLOGY II.—3 s.h. PROFESSOR CUSHMAN  
 328. SEMINAR IN 20TH CENTURY CONTINENTAL AND BRITISH THE-  
 OLOGY.—3 s.h. PROFESSOR CUSHMAN  
 329. SEMINAR IN HISTORICAL THEOLOGY.—2 s.h.  
 391-392. HISTORICAL TYPES OF CHRISTIAN ETHICS.—6 s.h.  
 PROFESSOR BEACH  
 393. THE CHRISTIAN INTERPRETATION OF HISTORY.—3 s.h.  
 PROFESSOR BEACH  
 394. CHRISTIANITY AND THE STATE.—3 s.h. PROFESSOR BEACH  
 395. RELIGIOUS THOUGHT IN COLONIAL AMERICA.—3 s.h.  
 PROFESSOR SMITH  
 396. AMERICAN RELIGIOUS THOUGHT IN THE NINETEENTH CEN-  
 TURY.—3 s.h. PROFESSOR SMITH  
 397. CURRENT AMERICAN THEOLOGY.—3 s.h. PROFESSOR SMITH  
 398. MODERN AMERICAN CHRISTOLOGY.—3 s.h. PROFESSOR SMITH  
 495 SEMINAR: JONATHAN EDWARDS AND JOHN WESLEY.—2 s.h.  
 PROFESSOR SMITH  
 498. SEMINAR: REINHOLD NIEBUHR AND PAUL TILLICH.—2 s.h.  
 PROFESSOR SMITH

## RELATED COURSES IN OTHER DEPARTMENTS

Political Science 229, 231.

## OTHER COURSES

Certain other courses listed in this bulletin and the *Bulletin of the Divinity School* may be taken for graduate credit provided that at the time of registration they are approved by the Director of Graduate Studies in Religion and by the Dean of the Graduate School.

## ROMANCE LANGUAGES

PROFESSOR JORDAN, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES—214 CARR; VISITING LECTURER KENISTON; PROFESSORS PREDMORE AND WALTON; ASSOCIATE PROFESSORS CASTELLANO AND DAVIS; ASSISTANT PROFESSOR DEMOREST

## FRENCH

## FOR SENIORS AND GRADUATES

- |  |                              |
|--|------------------------------|
| 210. THE AGE OF RICHELIEU.—3 s.h.                  | ASSISTANT PROFESSOR DEMOREST |
| 213. FRENCH CLASSICISM.—3 s.h.                     | PROFESSOR WALTON             |
| 214. FRENCH CLASSICISM.—3 s.h.                     | PROFESSOR WALTON             |
| 215-216. THE MODERN FRENCH NOVEL.—6 s.h.           | PROFESSOR JORDAN             |
| 219. OLD FRENCH.—3 s.h.                            |                              |
| 220. OLD FRENCH.—3 s.h.                            |                              |
| 227. FRENCH POETRY SINCE THÉOPHILE GAUTIER.—3 s.h. | PROFESSOR WALTON             |
| 238. ANATOLE FRANCE.—3 s.h.                        | PROFESSOR WALTON             |

## FOR GRADUATES

- |   |                  |
|---|------------------|
| 323-324. REALISM AND NATURALISM.—6 s.h.                     | PROFESSOR JORDAN |
| 325-326. FRENCH LITERATURE IN THE SIXTEENTH CENTURY.—6 s.h. | PROFESSOR WALTON |
| 333-334. CONTEMPORARY FRENCH LITERATURE.—6 s.h.             | PROFESSOR JORDAN |
| 350. NINETEENTH-CENTURY FRENCH CRITICISM.—3 s.h.            | PROFESSOR JORDAN |

## SPANISH

## FOR SENIORS AND GRADUATES

- |   |                                |
|---|--------------------------------|
| 257. OLD SPANISH LANGUAGE.—3 s.h.   | ASSOCIATE PROFESSOR DAVIS      |
| 258. OLD SPANISH LITERATURE.—3 s.h.   | ASSOCIATE PROFESSOR DAVIS      |
| 260. ADVANCED COMPOSITION AND SYNTAX.—Prerequisite: Spanish 173-174 or permission. 3 s.h. | ASSOCIATE PROFESSOR CASTELLANO |
| 261-262. MODERN SPANISH NOVEL.—6 s.h.   |                                |
| 264. MODERN AND CONTEMPORARY SPANISH THEATER.—3 s.h.                                      | ASSOCIATE PROFESSOR CASTELLANO |
| 265. GOLDEN AGE LITERATURE: CERVANTES.—3 s.h.   | PROFESSOR PREDMORE             |
| 266. GOLDEN AGE LITERATURE: THE DRAMA.—3 s.h.   | ASSOCIATE PROFESSOR CASTELLANO |
| 275. CONTEMPORARY SPANISH LITERATURE.—3 s.h.  | PROFESSOR PREDMORE             |
| 276. CONTEMPORARY SPANISH LITERATURE.—3 s.h.  | PROFESSOR PREDMORE             |
| 285. THE EARLY RENAISSANCE IN SPAIN (1474-1550).—3 s.h.                                   | PROFESSOR KENISTON             |

286. THE LATER RENAISSANCE IN SPAIN (1550-1600).—3 s.h.

PROFESSOR KENISTON

## SOCIOLOGY AND ANTHROPOLOGY

PROFESSOR JENSEN, CHAIRMAN—215E SOCIAL SCIENCE BUILDING; PROFESSOR HART, DIRECTOR OF GRADUATE STUDIES—215D SOCIAL SCIENCE BUILDING; PROFESSOR THOMPSON; ASSOCIATE PROFESSORS LABARRE AND SCHETTTLER

### ANTHROPOLOGY

212. PRIMITIVE RELIGION.—3 s.h. ASSOCIATE PROFESSOR LABARRE  
 213. PERSONALITY AND SOCIETY.—3 s.h. ASSOCIATE PROFESSOR LABARRE  
 214. PERSONALITY AND CULTURE.—Prerequisite: course 213. 3 s.h.  
 ASSOCIATE PROFESSOR LABARRE  
 215. THE AMERICAN INDIAN.—3 s.h. ASSOCIATE PROFESSOR LABARRE  
 217. THE PEOPLES OF AFRICA, ASIA, AND OCEANIA.—3 s.h.  
 ASSOCIATE PROFESSOR LABARRE  
 330. SEMINAR IN ANTHROPOLOGY.—I to 3 s.h. *each semester*.  
 ASSOCIATE PROFESSOR LABARRE

### COMMUNITY, RACE AND CULTURE

233. RURAL SOCIOLOGY.—3 s.h. PROFESSOR THOMPSON  
 235. URBAN SOCIOLOGY.—3 s.h. PROFESSOR THOMPSON  
 237. COMMUNITY AND SOCIETY.—3 s.h. PROFESSOR THOMPSON  
 238. RACE AND CULTURE.—3 s.h. PROFESSOR THOMPSON  
 340. SEMINAR.—3 s.h. PROFESSOR THOMPSON

### COLLECTIVE BEHAVIOR

243. SOCIAL ATTITUDES AND COLLECTIVE BEHAVIOR.—3 s.h.  
 ASSOCIATE PROFESSOR SCHETTTLER  
 246. PUBLIC OPINION AND PROPAGANDA.—3 s.h.  
 ASSOCIATE PROFESSOR SCHETTTLER  
 249. CHILD WELFARE.—3 s.h. PROFESSOR HART  
 250. MARRIAGE AND THE FAMILY.—3 s.h. PROFESSOR HART

### SOCIAL ORGANIZATION AND DISORGANIZATION

271. SOCIAL PATHOLOGY.—3 s.h. PROFESSOR JENSEN  
 273. SPECIAL PROBLEMS IN SOCIAL PATHOLOGY.—1 to 3 s.h.  
 PROFESSOR JENSEN  
 276. CRIMINOLOGY.—3 s.h. PROFESSOR JENSEN  
 277. SEMINAR IN MEDICAL SOCIOLOGY.—2 s.h.  
 278. SEMINAR IN FAMILY LAW.—2 s.h. PROFESSOR BRADWAY  
 380. SEMINAR IN APPLIED SOCIOLOGY.—1 to 3 s.h. PROFESSOR JENSEN

### SOCIAL THEORY

286. SOCIAL ETHICS.—3 s.h. PROFESSOR HART  
 288. CONTEMPORARY PROBLEMS IN CULTURAL LAG.—3 s.h.  
 PROFESSOR HART  
 381. PRINCIPLES OF SOCIOLOGY.—3 s.h. PROFESSOR JENSEN  
 382. HISTORY OF SOCIOLOGICAL THEORY.—3 s.h. PROFESSOR JENSEN



## METHODS OF SOCIAL RESEARCH

292. STATISTICAL TECHNIQUES IN SOCIOLOGY.—3 s.h. PROFESSOR HART
293. SPECIAL PROBLEMS IN SOCIAL STATISTICS.—1 to 3 s.h.  
PROFESSOR HART
391. SEMINAR IN SOCIAL STATISTICS.—1 to 3 s.h. PROFESSOR HART
393. OPERATIONAL SOCIOLOGY.—Prerequisite: one of the following: Sociology 292 or Economics 237-238, or Education 209, or Mathematics 124, or some other acceptable course in statistics. 3 s.h. PROFESSOR HART
396. METHODS OF SOCIAL RESEARCH.—3 s.h. PROFESSOR JENSEN
399. DEPARTMENTAL SEMINAR.—1 s.h.  
PROFESSORS JENSEN, HART, AND THOMPSON; ASSOCIATE  
PROFESSORS SCHEITLER AND LABARRE

## RELATED COURSES IN OTHER DEPARTMENTS

Economics 215, 216, 217; Philosophy 205; Political Science 223, 224; Psychology 206.

## ZOOLOGY

PROFESSOR GRAY, CHAIRMAN—218 BIOLOGY BUILDING; PROFESSOR WILBUR, DIRECTOR OF GRADUATE STUDIES—328 BIOLOGY BUILDING; PROFESSORS EMERITI HARGITT AND PEARSE; PROFESSOR SCHMIDT-NIELSEN; ASSOCIATE PROFESSORS BOOKHOUT, HUNTER, ROBERTS, AND WHARTON; ASSISTANT PROFESSORS HORN AND NACE

## FOR SENIORS AND GRADUATES

202. HELMINTHOLOGY.—Prerequisite: Zoology 161. 4 s.h.  
ASSOCIATE PROFESSOR HUNTER
204. ADVANCED PARASITOLOGY.—Prerequisite: Zoology 161. 4 s.h.  
ASSOCIATE PROFESSOR WHARTON
222. ENTOMOLOGY.—Prerequisite: one year of zoology. 4 s.h.  
PROFESSOR GRAY
224. VERTEBRATE ZOOLOGY.—Prerequisite: Zoology 53. 4 s.h.  
PROFESSOR GRAY
229. ENDOCRINOLOGY.—Prerequisites: Zoology 53, and 92. 4 s.h.
238. SYSTEMATIC ZOOLOGY.—Prerequisite: Zoology 1 and 2. 4 s.h.  
ASSOCIATE PROFESSOR WHARTON
252. COMPARATIVE PHYSIOLOGY.—Prerequisite: Zoology 151 or equivalent. 4 s.h.  
PROFESSOR SCHMIDT-NIELSEN
253. ADVANCED VERTEBRATE MORPHOLOGY.—Prerequisites: Zoology 53. 92. 4 s.h.  
ASSISTANT PROFESSOR HORN
271. CELLULAR PHYSIOLOGY.—Prerequisites: two years of biology and at least one year of chemistry. 4 s.h.  
PROFESSOR WILBUR
274. INVERTEBRATE ZOOLOGY.—Prerequisites: Zoology 1 and 2. 4 s.h.  
ASSOCIATE PROFESSOR BOOKHOUT
276. PROTOZOOLOGY.—Prerequisites: Zoology 1 and 2. 4 s.h.  
ASSOCIATE PROFESSOR BOOKHOUT
278. INVERTEBRATE EMBRYOLOGY.—Prerequisite: Zoology 92. 4 s.h.  
ASSOCIATE PROFESSOR BOOKHOUT

## FOR GRADUATES

303. ECOLOGY.—4 s.h. PROFESSOR GRAY
306. ADVANCED ECOLOGY.—Prerequisite: Zoology 303. 4 s.h.

307. FOUNDATIONS OF ZOOLOGY.—2 s.h. STAFF
324. ADVANCED PHYSIOLOGY.—Prerequisite: Zoology 252 or 271. 4 s.h.  
PROFESSORS SCHMIDT-NIELSEN AND WILBUR
328. EXPERIMENTAL EMBRYOLOGY.—Prerequisites: Zoology 53, 92, 156, 271,  
 or equivalent. 4 s.h. ASSISTANT PROFESSOR NACE
341. HISTORICAL ZOOLOGY.—2 s.h. PROFESSOR HARGITT
343. CYTOLOGY.—Prerequisites: Zoology 53, 92, 156, or equivalent. 4 s.h.  
ASSOCIATE PROFESSOR ROBERTS
- 351-352. ZOOLOGICAL JOURNAL CLUB.—2 s.h. STAFF
- 353-354. RESEARCH.—Credits to be arranged.
- (a) EMBRYOLOGY. ASSISTANT PROFESSOR NACE
- (b) PHYSIOLOGY. PROFESSORS SCHMIDT-NIELSEN AND WILBUR
- (c) HISTOLOGY, CYTOLOGY. ASSOCIATE PROFESSOR ROBERTS
- (d) INVERTEBRATE ZOOLOGY, INVERTEBRATE HISTOLOGY AND  
 EMBRYOLOGY. ASSOCIATE PROFESSOR BOOKHOUT
- (e) ECOLOGY, ENTOMOLOGY, VERTEBRATE ZOOLOGY. PROFESSOR GRAY
- (f) VERTEBRATE MORPHOLOGY AND MORPHOGENESIS.  
ASSISTANT PROFESSOR HORN
- (g) PARASITOLOGY. ASSOCIATE PROFESSORS HUNTER AND WHARTON
- 355-356. SEMINAR.—2 s.h.

## COURSES IN THE MEDICAL SCHOOL OPEN TO GRADUATE STUDENTS

PROFESSORS BEARD, F. BERNHEIM, CONANT, EADIE, EVERETT, HALL, HANDLER, HETHERINGTON,  
 MARKEE, D. T. SMITH, AND TAYLOR; ASSOCIATE PROFESSORS M. L. C. BERNHEIM,  
 DUKE, MCCREA, PEELE, PENROD, RUNDLES, AND SCHWERT

### ANATOMY

Completion of training equivalent to that required of an undergraduate majoring in biology is prerequisite for these courses in human anatomy.

M201. GROSS HUMAN ANATOMY.—Hours and credits (maximum 8 s.h.) by arrangement. Prerequisite: adequate training in comparative anatomy and embryology. PROFESSOR MARKEE AND STAFF

M202. MICROSCOPIC ANATOMY.—Hours and credits (maximum 3 s.h.) by arrangement. Prerequisite adequate training in histology or cytology.  
PROFESSOR MARKEE AND STAFF

M203. ANATOMY OF THE NERVOUS SYSTEM.—Hours and credits (maximum 4 s.h.) by arrangement. Prerequisite: Anatomy M201.  
PROFESSOR MARKEE AND STAFF

M204. NEUROANATOMICAL BASIS OF BEHAVIOR.—3 s.h.  
PROFESSOR HETHERINGTON

M312. RESEARCH.—Credits to be arranged.  
PROFESSORS MARKEE, EVERETT, HETHERINGTON;  
 ASSOCIATE PROFESSORS PEELE AND DUKE

### BIOCHEMISTRY AND NUTRITION

M241. GENERAL BIOCHEMISTRY AND NUTRITION.—Prerequisites: general chemistry, organic chemistry, physical and analytical chemistry, and at least one year of college biology. 8 s.h.; without laboratory work, 3 s.h.

PROFESSORS HANDLER AND TAYLOR; ASSOCIATE PROFESSORS  
 M. L. C. BERNHEIM AND SCHWERT; AND DR. KAMIN

M242. BIOCHEMICAL PREPARATIONS.—Prerequisite: Biochemistry M241 or its equivalent. 2, 3, or 4 s.h.

PROFESSOR HANDLER; ASSOCIATE PROFESSORS M. L. C. BERNHEIM AND SCHWERT

M341. THEORIES AND METHODS OF PHYSICAL BIOCHEMISTRY.—2 s.h.  
ASSOCIATE PROFESSOR SCHWERT

M343-344. BIOCHEMISTRY OF PROTEINS AND ENZYMES.—4 s.h.  
ASSOCIATE PROFESSOR SCHWERT

M345-346. SEMINAR.—2 s.h.  
PROFESSORS HANDLER AND TAYLOR; ASSOCIATE PROFESSORS  
M. L. C. BERNHEIM AND SCHWERT

M347-348. BIOCHEMICAL RESEARCH.—Prerequisite: Biochemistry M241 or its equivalent. 2, 3, or 4 s.h. PROFESSORS HANDLER AND TAYLOR; ASSOCIATE PROFESSORS  
M. L. C. BERNHEIM AND SCHWERT

M349-350. INTERMEDIARY METABOLISM.—Prerequisite: Biochemistry M241 or its equivalent. 4 s.h. PROFESSOR HANDLER

M351. NUTRITION.—Prerequisite: Biochemistry M241 or its equivalent. 2 s.h.  
PROFESSOR HANDLER

M354. BIOCHEMISTRY OF DISEASE.—2 s.h. PROFESSOR HANDLER

### MICROBIOLOGY

M221. BACTERIOLOGY AND IMMUNOLOGY.—Prerequisites: courses in general zoology, general botany, histology and comparative anatomy, general and organic chemistry. 6 s.h. PROFESSOR D. T. SMITH AND STAFF

M322. IMMUNOCHEMISTRY.—2 s.h.

M323. ADVANCED BACTERIOLOGY AND IMMUNOLOGY.—Prerequisites: Bacteriology and Immunology, M221. 8 s.h. PROFESSOR D. T. SMITH AND STAFF

M234. RESEARCH SEMINAR ON VIRUSES.—2 s.h. per semester.  
PROFESSOR BEARD

M325. MEDICAL MYCOLOGY.—Prerequisites: A.M. in Botany with Major in Mycology and M221. 8 s.h. PROFESSOR CONANT

### HEMATOLOGY

M211. Prerequisites: courses in general zoology, general botany, histology and comparative anatomy. 4 s.h. ASSOCIATE PROFESSOR RUNDLES

### MEDICAL PARASITOLOGY

M291. MEDICAL PARASITOLOGY.—Prerequisites: courses in Zoology 204, general botany, histology and comparative anatomy. 1 s.h.

### PHYSIOLOGY AND PHARMACOLOGY

M261-262. HUMAN PHYSIOLOGY.—Prerequisites: Anatomy M201 and Biochemistry M241 (or equivalents) and at least one year of college physics. Credits depending on work taken. (Maximum 8 s.h.) PROFESSOR HALL AND STAFF

M341. HISTORY OF BIOLOGICAL SCIENCES.—2 s.h. PROFESSOR HARGITT

M365. RESPIRATION AND AERO-PHYSIOLOGY.—Prerequisites: M261-262 or equivalent. 4 s.h. PROFESSOR HALL

M367. PHYSIOLOGY OF THE NERVOUS SYSTEM.—Prerequisites: M261-262 or equivalent. 2 s.h. PROFESSOR EADIE

M369. PHARMACOLOGY. MODE OF ACTION OF DRUGS.—Prerequisites: M261-262 or equivalent. 4 s.h. PROFESSOR F. BERNHEIM

M370. SEMINAR.—2 s.h. PROFESSOR HALL AND STAFF

M372. RESEARCH.—Credits to be arranged. STAFF

# THE DIVINITY SCHOOL

Fall Semester begins September 17, 1953

Spring Semester begins February 2, 1954

# General Information



## HISTORICAL STATEMENT

THE Indenture of Trust signed on December 11, 1924, by Mr. James B. Duke, which established Duke University, mentioned first among its objects the training of ministers of the Gospel. The Divinity School was, accordingly, the first of the graduate professional schools to be organized. Its work began with the year 1926-27, the formal opening exercises being held on November 9, 1926.

## THE PURPOSE OF THE DIVINITY SCHOOL

The primary purpose of the Divinity School is to provide training for individuals planning to enter the Christian ministry. This includes not only prospective ministers in local churches, but also those preparing themselves to be missionaries at home and abroad, directors of religious education, teachers of religion, chaplains, and social workers. Vital to all of these forms of service is a full understanding of the beginnings, content, and history of the Christian faith and its special pertinence for the spiritual needs of the modern world. Studies of a broad and thorough character directed toward such an understanding constitute the center of the curriculum of the Divinity School and are regarded as the basic training for all prospective Christian workers. Specific training in the skills required of local ministers and of leaders in the work of religious education are also provided. As funds become available for the purpose and as needs appear, additional training in specialized skills and areas of knowledge will be added to the curriculum.

Though bound by ties of history and obligation to the Methodist Church, the Divinity School is ecumenical in its interests and outlook. Its faculty is limited to no one denomination, but draws upon the resources of them all. Students of the several denominations are admitted on the same basis. The Divinity School conceives its task to be one of broad service to the Church of Christ in all of its forms.

## THE RELATION OF THE DIVINITY SCHOOL TO DUKE UNIVERSITY

The Divinity School is an integral unit of the University and shares fully in its activities, privileges and responsibilities. The Sunday services in the University Chapel give Divinity School students an opportunity to hear each year a number of leading preachers of the country. The University Libraries make easily accessible a rich collection of



approximately a million volumes. Selected courses in the Graduate School of Arts and Sciences and in the professional schools are open to Divinity School students without payment of additional fees. The general cultural and recreational resources of the University are available to them on the same basis as to other students.

### LIBRARY RESOURCES

The Divinity School has its own library containing over sixty-two thousand volumes. It is rich in complete files of the more important religious journals and periodicals, in source materials, particularly for the study of medieval and American church history, Judaism, missions and the history of religion, and in facsimiles of the more important manuscripts of the New Testament. Among the most treasured possessions of the Library are seventeen Greek manuscripts of the eleventh to seventeenth centuries. Twelve are Greek New Testament, of which one is a magnificent manuscript of the thirteenth or fourteenth century, containing the entire text of the New Testament; four are liturgical manuscripts containing material valuable for studies in the New Testament and church history.

The Henry Harrison Jordan Loan Library was endowed in 1947 by the children of the late Reverend Henry Harrison Jordan for the purpose of providing ministers in the field with the best of current religious literature. This collection was an outgrowth of the Duke Divinity School Loan Library established in 1944.

### COURSES OF STUDY OFFERED BY THE DIVINITY SCHOOL

The Divinity School offers two courses of study. The basic course is that which leads to the degree of Bachelor of Divinity. This is a three-year course and is recommended to all those preparing themselves for the work of the regular pastoral ministry. Students who hold pastoral charges, or other remunerative work requiring any substantial time apart from their studies, may carry only reduced schedules of work, and, in most cases, unless work is taken in the Duke University Summer Session, will spend four years in completion of the requirements for the B.D. degree.

The Divinity School offers also a course of study leading to the degree of Master of Religious Education. This course is designed for individuals who wish to become directors or to take other specialized positions in the work of Christian Education. The course does not provide a general preparation for the work of the regular ministry and cannot serve as a substitute for it. No exchange of credits between the two courses is permitted, nor can departmental courses taken be credited toward more than one degree. Only a limited number of candidates for the Master of Religious Education degree will be accepted annually.

### COURSES OF STUDY IN RELIGION OFFERED BY THE GRADUATE SCHOOLS OF ARTS AND SCIENCES

Students who desire to pursue work in religion beyond that for the Bachelor of Divinity degree should register in the Graduate School of Arts and Sciences, through which the degrees of Master of Arts and Doctor of Philosophy in Religion may be obtained. This advanced work is administered through the Department of Religion of the Graduate School and is available to qualified persons of all denominations on an equal basis. Study and research may be pursued in three fields: (1) Biblical Studies; (2) Studies in Church History; and (3) Studies in Christian Thought. A list of courses approved by the Graduate Council for work in these fields, together with general requirements for admission to the Graduate School, may be found in the *Bulletin of the Graduate School*. This Bulletin is available on application to Dean Charles S. Sydnor, The Graduate School of Arts and Sciences, Duke University.

A limited number of University Scholarships and Fellowships, among which are four Gurney Harriss Kearns Fellowships of \$1,200 each, may be obtained by exceptionally qualified students. Applications for these must be submitted to Dean Sydnor on University forms not later than March 1 of each year.

Inquiries concerning specific requirements of the Department of Religion in the Graduate School should be addressed to Professor H. Shelton Smith, Director of Graduate Studies in Religion.

### FACILITIES FOR ADVANCED STUDY IN THE AMERICAN SCHOOLS OF ORIENTAL RESEARCH

The Divinity School of Duke University is one of the supporting members of the American Schools of Oriental Research. Accordingly, students in the Divinity School have the privilege of attending the American School in Jerusalem or the one in Bagdad without charge for tuition. They may also compete for the financial aids which are offered annually by the Schools. These consist of four fellowships, the stipends depending upon available funds.

### DIVINITY SCHOOL SEMINARS

The Divinity School, under provision of the James A. Gray fund, conducts each year two extension seminars providing two-day study courses for ministers. In 1952-53 seminars were conducted at West Market Street Methodist Church, Greensboro, N. C. and Queen Street Methodist Church, Kinston, N. C. Lecturers were Dr. Lynn Harold Hough and Dr. James T. Cleland.

### SCHOOL FOR APPROVED SUPPLY PASTORS

In cooperation with the Department of In-Service Training of the Board of Education and the Southeastern Jurisdictional Conference of the Methodist Church, the Divinity School conducts a School for Approved Supply Pastors of the Methodist Church. The Congregational Christian Church also cooperates in this school. The school for 1953 is scheduled for June 15-July 1.

### STUDENT GOVERNMENT ASSOCIATION

Each student of the Divinity School upon enrollment becomes a member of the Student Government Association. Four officers are elected by the student body annually in April to serve for the following year. These officers, the President, Vice-President, Secretary, and Treasurer, along with the Dean of the Divinity School, serve as the Executive Committee, and the committee chairmen constitute the Student Council which meets in monthly session to review and coordinate the programs of the several committees. It is desired that all students contribute to the corporate life of the School through active participation in the work of the committees. The Association operates on the basis of a unified budget, each student contributing to its support dues in the amount of \$5.00 per year, payable at the time of fall registration; \$2.50 at spring registration for students who enter at that time.

# Admission and Requirements for Degrees



## *Requirements for Admission*

THE Divinity School is a fully accredited member of the American Association of Theological Schools, and is one of the ten accredited seminaries of the Methodist Church. Candidates for admission must hold the degree of A.B., or its equivalent, based upon four years of work beyond secondary education, in a college which is approved by one of the regional accrediting bodies, and their college records must be such as to indicate their ability to carry on graduate professional studies. They will be admitted without examination on presentation of an official transcript of college and all other academic credits which they may have secured.

Applications may be rejected where transcripts show a considerable number of low grades even though the applicant may have eventually received a degree based upon a bare "C" average, especially where the applicant has required longer than the normal eight semesters of college work.

The applications of students from foreign countries will be considered, each on its own merits, the general principle being that a training equivalent to that of a baccalaureate degree from an accredited American college must have been secured. Women will be admitted on the same basis as men.

The Divinity School accepts students who desire to transfer from other accredited theological schools on the basis of transcripts of their work and honorable dismissal. However, all transfer students will be expected to meet the full requirements of the Divinity School and should recognize the fact that there may be loss of time in conforming to these requirements. Students who have more than thirty semester hours of credit elsewhere are not encouraged to transfer because the required courses for the first and second years are scheduled on the same hours each week; it will usually require at least two full academic years of two semesters each to meet the Divinity School requirements regardless of the amount of credit transferred. Credits will be formally accepted only after the student has spent one semester in the Duke Divinity School.

In addition to an adequate academic preparation, applicants must

satisfy the Faculty as to their Christian character and purpose. A formal application blank may be secured from the office of the Divinity School. This must be filled out and returned by all candidates for admission. Application for admission should be made as soon as possible after the beginning of the applicant's last semester of college work. Applications received after April 1 cannot be assured of admission or financial aid for the ensuing academic year.

All persons admitted to the Divinity School are required to report to the Student Health Service, Duke Hospital, for physical examination on days and at hours specified at the time of matriculation. They are also required to take certain tests administered by the Bureau of Testing and Guidance.

Persons who do not matriculate at the time for which they were originally admitted are required to secure written approval for later matriculation.

The number of applications for admission to the School is considerably larger than the number of vacancies. In view of this fact, applicants are required on notification of admission to signify their acceptance within two weeks, and to pay an admission fee of \$15.00. (Make check payable to Treasurer of Duke University and send to the Office of the Dean of the Divinity School.) This fee is applied to the regular first-term bill if the student matriculates; if he fails to do so, the fee is forfeited.

Under the terms of the Selective Service Act, as it now stands, pre-enrollment for later formal admission may be granted to persons who meet the Divinity School standards and requirements for admission. Applications for pre-enrollment may be addressed to the Office of the Dean. Pre-enrolled students must send transcripts of each year's college work by June 15th of each year in which they are pre-enrolled. Pre-enrollment does not guarantee formal admission, and a person who has been pre-enrolled for any length of time must send a transcript of work by April 1 of the year in which admission is sought for the ensuing academic year. The admission fee of \$15.00 is due within two weeks of receipt of notice of formal admission.

### ADMISSION ON PROBATION

1. Applicants for admission who are graduates of non-accredited colleges will be considered on their merits, but only those who give evidence of special promise will be admitted. Specifically, such applicants must show that they have attained a superior average (approximately "B") for a four-year college course.

Admission of such persons will, in every case, be *on probation*.

2. Applicants for admission who are graduates of accredited colleges but whose college transcripts do not fully meet Divinity School



standards may be admitted *on probation* if their recommendations justify consideration.

Probation means:

a. Students who, during the first year of Divinity School work (thirty semester hours), maintain a consistently low average, including one or more failures, will be required to withdraw from the school.

b. Students admitted on probation may carry only limited schedules of work, the amount to be determined by the Dean.

c. In the case of a student admitted on probation, no credit will be granted for any course in which, during the first year's work (thirty semester hours), a grade of less than "C" (see catalogue section on "grading system") is recorded, unless the student's entire average in the year during which a "D" grade is received is "C" or better.

d. When the student has been admitted on probation, and is subsequently found to be deficient in the essential requisites of any given area of the "Pre-Seminary Curriculum" (see next section of catalogue), the Divinity School Faculty reserves the right to direct that the student make up such deficiencies by additional courses of study taken in other schools of Duke University in order to qualify for either the B.D. or M.R.E. degree, but without credit for such courses toward those degrees.

### PRE-SEMINARY CURRICULUM

The Divinity School, in substantial agreement with the standards of the American Association of Theological Schools, recommends that prospective candidates for admission keep in mind the desirability of including the following in their undergraduate curriculum:

It is suggested that a student should acquire a total of 90 semester hours or complete approximately three-fourths of his college work in the areas listed below. No work done towards a first college degree may be used towards a Divinity School degree.

<i>Basal Fields</i>	<i>Semester</i>	<i>Sem. Hours</i>
English	6	12-16
Literature, Composition and Speech		
Philosophy	3	6-12
At least two of the following:		
Introduction to philosophy, history of philosophy, ethics, logic		
Bible or Religion	2	4-6
History	3	6-12
Psychology	1	2-3
A foreign language	4	12-16
Greek and Hebrew are especially recommended.		
Natural sciences	2	4-6
Physical or biological		
Social sciences	2	4-6
At least two of the following:		
Economics, sociology, government or political science, social psychology, education.		

Concentration of work, or "majoring," is a common practice in colleges. For such concentration or major, a constructive sequence based upon any one, two, or three of the above fields of study would lead up naturally to a theological course.

Of the various possible areas of concentration, where areas of concentration are required, a major in English, philosophy, or history is regarded to be the most desirable.

## *Requirements for the Degree of Bachelor of Divinity*

The requirements for the degree of Bachelor of Divinity are the following:

Completion of ninety semester hours of course work, including the required courses of the core curriculum.

The selection, not later than the end of the middle year, of one of the Vocational Groups, and completion of the special requirements of the Group chosen, including satisfactory completion of the work of one Senior Seminar.

Demonstration of a detailed knowledge of the contents of the narrative portions of the English Bible. Examinations for this purpose in Old and New Testament are given each spring. (See Calendar for exact dates.)

Students who show deficiencies in English will be required to take special training in addition to meeting the other requirements for the degree. A degree may be withheld on the grounds of English deficiency only.

The degree of Bachelor of Divinity will not be conferred on a student transferring from another institution until he has spent at least two semesters in residence in the Divinity School. This is defined as the completion of thirty semester hours of work, not more than six hours of which may be taken in the Duke University Summer Session.

By special permission a student who has begun his work in Duke Divinity School as a candidate for the B.D. degree may be given credit for not more than 30 semester hours of work taken in another seminary on the approved list of the American Association of Theological Schools. Except in unusual cases, request for such credits must be approved prior to the beginning of work at the other institution. In every such case, however, the final 15 hours of class credit presented for graduation must be done at Duke and must include satisfactory completion of one of the Senior Seminars. No such student will be relieved of any of the requirements for graduation specified in the catalogue of the Duke Divinity School.

Unless all the work offered for the B.D. degree is completed within a period of nine years from the date of beginning, the student will be required to make formal application for re-admission and re-evaluation of his credits in the light of the then-existing curriculum of the Divinity School. Except in unusual cases, work of a fragmentary character taken over a long period of years, or work taken many years before a student is admitted to the Duke Divinity School, will not be accepted for credit toward the B.D. degree.

Not over 24 semester hours of Summer Session work may be credited toward the degree of Bachelor of Divinity.

In view of the fact that enrollment must be limited, persons who have already received the B.D. degree from Duke or elsewhere will not be admitted to the Divinity School except as special students in the Summer Session.

### ADMINISTERING THE CURRICULUM

For the administration of the curriculum the following regulations have been adopted:

Full-time students will take the core required courses as specified for the respective semesters, being limited to the amount of free elective work indicated in each term. The only exceptions are as specified in the provision for languages.

Since the four-day-a-week schedule of required courses and the free week-ends have been planned with special reference to the needs of students holding pastoral charges, such students are permitted, but not required, to carry the total of hours of the core requirements for the first four semesters, but free electives may not be taken until all the core requirements have been fulfilled. The amount of work allowed in the last two semesters will be governed by the same principle. Such students may not carry more than the core curriculum or its equivalent without special permission of the Dean. A student who does not do creditable work will be required to reduce his schedule. The schedules of all students are subject to the approval of the Dean.

The status of "special student" may not be granted simply to permit avoidance of the schedule of core required courses. Every request for this classification will be carefully investigated and approval voted in each case by the Curriculum Committee in the cases of students already admitted to the Divinity School, and by the Admissions Committee in the case of applicants for admission as "special students."

A fee of \$10.00 is charged for auditing any course except where a student is already paying regular University fees. Permission to audit requires the approval of the Dean and the instructor concerned.

Students working under or assisted by the Duke Endowment, or by Divinity School funds, are required to take one of the Field Work seminars. This work will be taken in the second semester of the first year. Unless taken at that spot, such seminars will be charged against the "free elective" allowance of later terms.

For a student taking both Greek and Hebrew, the Greek may be continued in the second year by postponing one or both of the 2-hour core courses in Old and New Testament. In such cases, the Hebrew will be the free elective in that year.

A part-time student who desires to begin the study of Greek in the first year may postpone the core required course in Old or New Testament.

Suitable entry will be made on the permanent record of any student who is granted permission to deviate from the core requirements in the matter of language.

It is the responsibility of each student to see that he meets all requirements for graduation, and to take his courses in proper sequence. He is also responsible for seeing that any special permission granted him to deviate from the normal program is properly recorded in his personal file. Members of the Faculty have no authority to grant deviations unless these are stated in a letter from the instructor in question to the Dean and approved by him; these to be added to the student's permanent record.

### GRADING SYSTEM

The grading system of the Divinity School employs the letters A, B, C, D, and F, which have been defined as follows: A = Excellent; B = Good; C = Acceptable; D = Poor; F = Failure; WP = Withdrew Passing; WF = Withdrew Failing; and Inc. = Incomplete. (See below.) No percentage equivalents are stated. A student is expected to maintain an average of C.

The Faculty has voted that in the average course of considerable size, especially core curriculum courses, the total of A and B grades should not run above  $33\frac{1}{3}\%$ . In all courses where the instructor considers attendance a necessary part of the work of the course, a student may not receive a grade of over C if his absences total 12% of the regular class periods, and if the absences total 24% of the class periods he may not receive credit for the course.

Grades of Incomplete received at the end of the fall semester must be removed by the completion of the work of the course not later than March 15. Grades of Incomplete received at the end of the spring semester must be removed by October 1. If the work of the course is not completed by these dates, the grades shall be recorded as "F."

No student shall be permitted to drop a course after the expiration of one-third of the period of instruction of the course without incurring failure, except for causes adjudged by the Dean to be beyond the student's control.

### *Requirements for the Degree of Master of Religious Education*

The course of study leading to this degree is designed for individuals desiring to engage in various forms of Christian Education.

Candidates for this degree must hold the degree of A.B. (or its

equivalent), based upon four years of work beyond secondary education, in a college which is approved by one of the regional accrediting bodies, and with academic and personal records which afford promise of competence in this area of service. The course of study will be especially useful for individuals who have had one or more years of experience in Christian Education and desire further training. Candidates for this degree will be limited in number, and individuals interested are urged to apply for admission well in advance of the opening of the academic year. All work offered for this degree, whether in the regular year or in summer sessions, must be completed within a period of six years from the date of beginning.

### PREREQUISITES

The following prerequisite studies must have been taken by the candidate prior to his admission to Duke Divinity School or must be secured, without credit toward the M.R.E. degree, after being admitted:

General Psychology	3 s.h.
Sociology	3 s.h.
Education	3 s.h.

### GENERAL REQUIREMENTS

Sixty semester hours of graduate-professional work are required for graduation. Not more than twelve semester hours of this work may be taken in approved summer sessions, and not more than eighteen semester hours outside of Duke Divinity School.

No credits are allowed for undergraduate courses. However, in approving plans of study leading to this degree, consideration will be given to earlier work taken in the fields of Biblical studies and Religious Education provided such courses were taken in the Junior and Senior years in accredited four-year colleges. Also where candidates for the degree have been engaged professionally as Directors of Christian Education for not less than twelve months prior to entering the Divinity School the amount of Field Work may, upon recommendation of the Director of the M.R.E. program and the approval of the Dean, be reduced to not less than six hours of Project or Directed Field Work during the period required for completing requirements for the degree.

A student who secures credit for 15 semester hours each semester will be in line for graduation at the end of two academic years. The amount of work allowed in each semester may not exceed that permitted in the B.D. curriculum.

### COURSE REQUIREMENTS

(Not to include any courses numbered above 199, except in Biblical Studies.)

Not less than eight semester hours of Divinity School work in Biblical Studies (including both Old and New Testaments) for all



M.R.E. candidates, and up to fourteen semester hours of such work for candidates adjudged to be insufficiently prepared in Biblical Studies.

Not less than nine nor more than fifteen semester hours in the field of Christian Education, to be distributed as follows: not less than six nor more than twelve semester hours in courses in Religious Education, and not less than three semester hours in Psychology of Religion (or more if adjudged necessary by the Director of the M.R.E. program).

Not less than four nor more than seven semester hours, taken in two fields, chosen from the offerings in Christian Theology, Christian Ethics, and American Religious Thought.

Not less than four nor more than seven semester hours, taken in two fields, chosen from the offerings in Church History, Historical Theology, and Philosophy of Religion.

Not less than four nor more than five semester hours, taken in two fields, chosen from the offerings in History of Religion and Missions, Practical Theology, and Pastoral Care.

Not less than two nor more than three semester hours, taken in one field, chosen from the offerings in Speech, Public Worship, and Church Music.

Project or Directed Field Work: Not less than six nor more than twelve semester hours.

Free electives in sufficient amount to complete sixty hours for graduation will be taken, if necessary.

Senior Seminars: The Senior Seminars of the B.D. curriculum are open to M.R.E. candidates only in the second year, by special permission of the Dean.

## *Conduct and Ministerial Acceptability*

All students are admitted subject to the rules of the University and of the Divinity School, and continuance in the School is conditioned upon the observance of such rules.

The University expects of its students loyal and hearty cooperation in maintaining high standards of conduct as well as of scholarship. The University, therefore, reserves the right, and matriculation by the students is a concession of this right, to compel the withdrawal of any student whose conduct at any time is not satisfactory to the University, even though no specific charge is made against the student.

Divinity School students whose progress and development show that they are not suited to the work of the ministry will not be permitted to continue in the School.

# Courses of Instruction\*



REQUIRED courses of the Core Curriculum and Senior Seminars are numbered from 11 to 99. Elective courses carrying credit in the Divinity School only are numbered from 101 to 199. Courses approved for credit in both the Divinity School and the Graduate School of Arts and Sciences are numbered above 200. Lists of courses to be offered in any semester will be available at the time of each registration.

## *I. Biblical Studies*

### OLD TESTAMENT

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| 11. (Formerly 203). INTRODUCTION TO THE OLD TESTAMENT.—4 s.h.                      | MR. STINESPRING |
| 12. (Formerly 204). PSALMS, WISDOM LITERATURE, AND THE PROBLEM OF THEODICY.—2 s.h. | MR. BROWNLEE    |
| 101. POST-EXILIC PROPHECY.—3 s.h.  | MR. BROWNLEE    |
| 196. THE BIBLE AND RECENT DISCOVERIES.—3 s.h.                                      | MR. BROWNLEE    |
| 197. CULTURAL HISTORY OF PALESTINE.—3 s.h.   | MR. STINESPRING |
| 201-202. FIRST HEBREW.—6 s.h.  | MR. STINESPRING |
| 205-206. ARABIC.—6 s.h.  | MR. STINESPRING |
| 207-208. SECOND HEBREW.—6 s.h.   | MR. BROWNLEE    |
| 301. THE RELIGIOUS THOUGHT OF POST-EXILIC JUDAISM.—Prerequisite: O.T. II. 3 s.h.   | MR. BROWNLEE    |
| 304. ARAMAIC.—3 s.h.   | MR. STINESPRING |
| 305. THIRD HEBREW.—3 s.h.  | MR. STINESPRING |
| 306. ADVANCED HEBREW.—3 s.h.   | MR. BROWNLEE    |
| 307. SYRIAC.—Some knowledge of Hebrew and Aramic prerequisite. 3 s.h.              | MR. STINESPRING |
| 309. HISTORY OF THE ANCIENT NEAR EAST.—3 s.h.                                      | MR. STINESPRING |
| 310. OLD TESTAMENT PROPHECY.—Prerequisite: O.T. II. 3 s.h.                         | MR. STINESPRING |

See also Pr. 183.—MATERIALS OF PREACHING—BIBLICAL.

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\*HISTORY OF ART 215. RELIGIOUS ART OF THE ANCIENT NEAR EAST.—3 s.h. MR. MARKMAN

\*HISTORY OF ART 216. RELIGIOUS ART OF THE CLASSICAL WORLD.—MR. MARKMAN

\* On recommendation of the Dean, courses offered in the Graduate School of Arts and Sciences other than those approved for credit in the Divinity School may be approved for credit in individual cases, provided no equivalent course is offered in the Divinity School; each case to be decided on its merits.

## NEW TESTAMENT

18. (Formerly 213.) EARLY CHRISTIAN LIFE AND LITERATURE.—4 s.h.  
MR. CLARK
19. (Formerly 214.) INTRODUCTION TO NEW TESTAMENT THEOLOGY.—  
Prerequisite: N.T. 18. 2 s.h.  
MR. DAVIES
- 103-104. (Formerly 211-212.) HELLENISTIC GREEK.—6 s.h., provided the student takes three additional semester hours in New Testament Greek. MR. EDWARDS
105. (Formerly 219) LIFE OF PAUL.—3 s.h.  
MR. MYERS
109. (Formerly 216.) HISTORY OF THE ENGLISH BIBLE.—3 s.h. MR. CLARK
116. LIVING ISSUES OF NEW TESTAMENT THEOLOGY.—2 s.h.  
MR. DAVIES
217. THE NEW TESTAMENT IN GREEK.—Prerequisite: six semester hours' study of the Greek language. 3 s.h.  
MR. CLARK
218. GALATIANS AND I CORINTHIANS.—Prerequisite: six semester hours' study of the Greek language. 3 s.h.  
MR. DAVIES
220. I PETER AND THE GOSPEL OF JOHN.—Prerequisite: six semester hours' study of the Greek language. 3 s.h.  
MR. DAVIES
311. THE LIFE AND TEACHINGS OF JESUS.—3 s.h.  
MR. CLARK
312. ADVANCED NEW TESTAMENT THEOLOGY.—Prerequisite: N.T. 19.  
3 s.h.  
MR. DAVIES
313. APOSTOLIC FATHERS.—3 s.h.  
MR. CLARK
314. (Formerly 317.) PATRISTIC THOUGHT.—Prerequisite: N.T. 19. 3 s.h.  
MR. DAVIES
316. HELLENISTIC RELIGIONS.—Prerequisite: N.T. 18. 3 s.h.  
MR. CLARK
317. (Formerly 320.) THE SYNOPTIC GOSPELS.—Prerequisite: N.T. 18. 3 s.h.  
MR. CLARK
318. TEXTUAL CRITICISM OF THE NEW TESTAMENT.—3 s.h.  
MR. CLARK
319. JUDAISM AND EARLY CHRISTIANITY.—3 s.h.  
MR. DAVIES
- See also Pr. 183. MATERIALS OF PREACHING—BIBLICAL.

\*GREEK 257.—3 s.h.

MR. ROGERS

\*LATIN 258.—3 s.h.

MR. ROGERS

*II. Historical Studies*

## HISTORY OF RELIGION AND MISSIONS

15. (Formerly 281.) LIVING RELIGIONS OF THE WORLD.—3 s.h.  
MR. LACY
24. (Formerly 282.) MISSIONS.—2 s.h.  
MR. LACY
108. (Formerly 284.) COMPARATIVE RELIGION I.—Prerequisite: H.R. 15.  
3 s.h.  
MR. CANNON
110. (Formerly 286.) COMPARATIVE RELIGION II.—Prerequisite: H.R. 15.  
3 s.h.  
MR. CANNON
112. (Formerly 288.) THE RELIGIONS OF INDIA.—3 s.h.  
MR. CANNON

\* Course offered in the Graduate School of Arts and Sciences which is credited toward the degree of Bachelor of Divinity.

113. (Formerly 283.) THE RELIGIONS OF THE FAR EAST.—3 s.h.  
MR. CANNON
115. (Formerly 289.) BUDDHISM.—Prerequisite: H.R. 15. 2 s.h. MR. CANNON
117. (Formerly 287.) MOHAMMEDANISM.—Prerequisite: H.R. 15. 2 s.h.  
MR. CANNON
126. MISSIONARY EDUCATION IN THE CHURCH.—2 s.h. MR. LACY

### CHURCH HISTORY

13. (Formerly 233.) HISTORY OF THE PRE-REFORMATION CHURCH.—  
4 s.h. MR. PETRY
14. (Formerly 234.) HISTORY OF THE REFORMATION AND POST-  
REFORMATION CHURCH.—2 s.h. MR. SCHAFER
136. (Formerly 337.) PRE-REFORMATION PREACHING.—Prerequisite: C.H.  
13. 2 s.h. MR. PETRY
137. (Formerly 336.) RELIGIOUS LEADERS IN CHRISTIAN HISTORY.—  
Prerequisites: C.H. 13. 2 s.h. MR. PETRY
138. GREAT BOOKS IN CHRISTIAN HISTORY.—3 s.h. MR. PETRY
139. (Formerly 339.) METHODISM.—Prerequisite: C.H. 13. 2 s.h. MR. PETRY
330. THE CHURCH IN EUROPE SINCE 1800.—3 s.h. MR. PETRY
331. THE SOCIAL MESSAGE OF THE EARLY AND MEDIEVAL CHURCH.—  
Prerequisite: C.H. 13. 3 s.h. MR. PETRY
332. THE MEDIEVAL CHURCH.—Prerequisite: C. H. 13. 3 s.h.  
MR. PETRY
334. CHURCH REFORMERS AND CHRISTIAN UNITY.—Prerequisite: C.H.  
13. 3 s.h. MR. PETRY
336. (Formerly 333.) A HISTORY OF CHRISTIAN RENUNCIATION IN THE  
MIDDLE AGES.—Prerequisite: C.H. 13. 3 s.h. MR. PETRY

### HISTORICAL THEOLOGY

21. (Formerly 222.) INTRODUCTION TO THE HISTORY OF CHRISTIAN  
DOCTRINE.—Prerequisite: C.T. 20. 2 s.h. MR. SCHAFER
120. THE CREEDS OF CHRISTENDOM.—3 s.h. MR. SCHAFER
129. SEMINAR IN HISTORICAL THEOLOGY.—Prerequisites: C.T. 21. 2 s.h.  
MR. SCHAFER
198. THE HERITAGE OF THE REFORMATION.—3 s.h. MR. SCHAFER
323. HISTORY OF CHRISTIAN THOUGHT I.—3 s.h. MR. SCHAFER
324. HISTORY OF CHRISTIAN THOUGHT II.—3 s.h. MR. SCHAFER
- See also C.H. 14. HISTORY OF THE REFORMATION AND POST-REFOR-  
MATION CHURCH.

### AMERICAN RELIGIOUS THOUGHT

28. (Formerly 296.) MOVEMENTS IN AMERICAN RELIGIOUS THOUGHT.—  
3 s.h. MR. SMITH
199. THE AMERICAN SOCIAL GOSPEL.—3 s.h. MR. SMITH
395. RELIGIOUS THOUGHT IN COLONIAL AMERICA.—3 s.h. MR. SMITH

\* Course offered in the Graduate School of Arts and Sciences which is credited toward the degree of Bachelor of Divinity.

396. AMERICAN RELIGIOUS THOUGHT IN THE NINETEENTH CENTURY.—3 s.h. Mr. SMITH
397. CURRENT AMERICAN THEOLOGY.—3 s.h. Mr. SMITH
398. MODERN AMERICAN CHRISTOLOGY.—3 s.h. Mr. SMITH
495. SEMINAR: JONATHAN EDWARDS AND JOHN WESLEY.—2 s.h. Mr. SMITH
498. SEMINAR: REINHOLD NIEBUHR AND PAUL TILLICH.—2 s.h. Mr. SMITH

### *III. Theological Studies*

#### PHILOSOPHY OF RELIGION

119. (Formerly 229.) INTRODUCTION TO PHILOSOPHY OF RELIGION.—3 s.h. Mr. CHANDLER
121. PHILOSOPHY OF CONTEMPORARY THEISM.—2 s.h. Mr. CHANDLER
122. THE PHILOSOPHY OF NATURALISTIC THEISM.—Prerequisite: consent of instructor. 2 s.h.
123. THEORIES OF VALUE: A GENERAL COURSE.—2 s.h.
124. The PHILOSOPHY OF PERSONALISM.—Prerequisite: consent of instructor. 2 s.h.
382. RELIGIOUS KNOWLEDGE.—Prerequisite: P.R. 119 or consent of instructor. 2 s.h.

#### CHRISTIAN THEOLOGY

20. (Formerly 221.) INTRODUCTION TO CHRISTIAN THEOLOGY.—4 s.h. Mr. CUSHMAN
107. (Formerly 329.) THE PERSON AND WORK OF CHRIST.—Prerequisite: C.T. 20. 2 s.h. Mr. CUSHMAN
224. (Formerly 323.) CONCEPTIONS OF MAN IN WESTERN THOUGHT.—3 s.h. Mr. CUSHMAN
321. PLATONISM AND CHRISTIANITY.—Prerequisite: permission of instructor. 3 s.h. Mr. CUSHMAN
322. THEOLOGY AND PHILOSOPHY IN THE NINETEENTH CENTURY.—Prerequisite: C.T. 20. 3 s.h. Mr. CUSHMAN
325. PHILOSOPHICAL THEOLOGY I.—Prerequisite: C.T. 20. 3 s.h. Mr. CUSHMAN
326. PHILOSOPHICAL THEORY II.—Prerequisite: C.T. 325. 3 s.h. Mr. CUSHMAN
328. (Formerly 321B.) SEMINAR IN TWENTIETH-CENTURY CONTINENTAL AND BRITISH THEOLOGY.—3 s.h. Mr. CUSHMAN

See also NEW TESTAMENT 312.—ADVANCED NEW TESTAMENT THEOLOGY.

#### CHRISTIAN ETHICS

27. (Formerly 291.) CHRISTIAN ETHICS I.—3 s.h. Mr. BEACH
114. (Formerly 292.) CHRISTIAN ETHICS II.—Prerequisite: C.E. 27. 2 s.h. Mr. BEACH
190. THE CHRISTIAN CRITIQUE OF COMMUNISM.—3 s.h. Mr. LACY
192. CHRISTIANITY AND INTERNATIONAL RELATIONS.—3 s.h. Mr. LACY



## 194. INTRODUCTION TO CHRISTIAN SOCIAL ETHICS.—3 s.h.

MR. LACY

391. HISTORICAL TYPES OF CHRISTIAN ETHICS I.—Prerequisite: C.E. 27 or its equivalent. 3 s.h. MR. BEACH

392. HISTORICAL TYPES OF CHRISTIAN ETHICS II.—Prerequisite: C.E. 391. 3 s.h. MR. BEACH

393. (Formerly 193.) THE CHRISTIAN INTERPRETATION OF HISTORY.—Prerequisite: C.E. 27. 3 s.h. MR. BEACH

394. CHRISTIANITY AND THE STATE.—Prerequisite: C.E. 27. 3 s.h. MR. BEACH

## \*238. RACE AND CULTURE.

MR. THOMPSON

## \*249. CHILD WELFARE.

MR. JENSEN

## \*250. MARRIAGE AND THE FAMILY.

MR. HART

## \*276. CRIMINOLOGY.

MR. JENSEN

## \*382. HISTORY OF SOCIOLOGICAL THEORY.

MR. JENSEN

## PSYCHOLOGY OF RELIGION

22. (Formerly 271.) PSYCHOLOGY OF RELIGION.—3 s.h. MR. RICHEY

125. (Formerly 272.) ADVANCED PSYCHOLOGY OF RELIGION.—3 s.h. MR. RICHEY

127. (Formerly 373.) PSYCHOLOGY OF PREACHING.—2 s.h.

128. (Formerly 374.) PASTORAL PSYCHOLOGY.—2 s.h.

129. (Formerly 375.) GENETIC PSYCHOLOGY OF RELIGION.—3 s.h.

130. (Formerly 376.) STUDIES IN MYSTICISM.—3 s.h.

*IV. Practical Studies*

The Core Curriculum sequence, Consolidated Course in Christian Leadership, comprises the following courses in the Division of Practical Studies, each of which is listed in its appropriate department:

P.T. 23. CHURCH ADMINISTRATION I.—2 s.h.

R.E. 25. EDUCATIONAL THEORY AND PRACTICE IN THE CHURCH.—2 s.h.

H.R. 24. MISSIONS.—2 s.h.

P.C. 26. INTRODUCTION TO PASTORAL CARE.—2 s.h.

## PRACTICAL THEOLOGY

23. (Formerly 252.) CHURCH ADMINISTRATION I.—2 sh. MR. WALTON

142. (Formerly 253.) FIELD WORK I—GENERAL.—1 s.h. (Note: all students working under or assisted by the Duke Endowment or by Divinity School funds are required to take this course, or 144, Field Work II, or 145, Field Work III.)

MR. WALTON

144. (Formerly 254.) FIELD WORK II—RURAL.—1 s.h. MR. WALTON

145. FIELD WORK III—URBAN.—1 s.h. MR. HILLMAN

146. CHURCH ADMINISTRATION II.—3 s.h. MR. WALTON

147. THE URBAN COMMUNITY.—2 s.h. MR. REGEN

\* Course offered in the Graduate School of Arts and Sciences which is credited toward the degree of Bachelor of Divinity. For a description of the course, see the catalogue of the Graduate School.

148. CHURCH FINANCE.—2 s.h. MR. WALTON
149. PARISH AND COMMUNITY RESEARCH AND ANALYSIS.—2 s.h.  
MR. WALTON
150. THE RURAL PASTOR AND HIS WORK.—3 s.h. MR. WALTON
151. (Formerly 353.) THE RURAL CHURCH.—3 s.h. MR. WALTON
152. (Formerly 354.) PARISH EVANGELISM.—2 s.h. MR. HILLMAN
154. (Formerly 356.) THE URBAN CHURCH.—2 s.h. MR. REGEN
155. (Formerly 357.) CHURCH POLITY: COMPARATIVE AND DENOMINATIONAL.—2 s.h.  
MR. WALTON, MR. KALE, MR. REGEN AND OTHERS

(The plan of this course is for the class to meet as a unit one hour a week for the study of the common interests of the denominations; for the other hour the class is divided into groups on the following plan:

- a. THE POLITY OF THE METHODIST CHURCH. MR. KALE
- b. THE POLITY OF THE BAPTIST CHURCHES.
- c. THE POLITY OF THE CONGREGATIONAL-CHRISTIAN CHURCHES.
- d. THE POLITY OF THE PRESBYTERIAN CHURCHES. MR. REGEN
- (Courses in the polity of other churches will be arranged as needed.)

FIELD WORK CREDIT.—1 s.h.

### RELIGIOUS EDUCATION

25. (Formerly 261.) EDUCATIONAL THEORY AND PRACTICE IN THE CHURCH.—2 s.h. MR. KALE
158. CHRISTIAN EDUCATION AND THE COMMUNITY.—3 s.h. MR. KALE
160. EVANGELISM IN THE CHURCH SCHOOL.—2 s.h. MR. KALE
161. THEORIES, TYPES AND TECHNIQUES OF TEACHING.—2 s.h.  
MR. KALE
162. (Formerly 262.) METHODS AND MATERIALS OF RELIGIOUS EDUCATION.—3 s.h. MR. KALE
163. (Formerly 363.) WORSHIP AND DRAMA.—3 s.h.
164. RELIGIOUS EDUCATION OF CHILDREN.—2 s.h. MR. KALE
165. RELIGIOUS EDUCATION OF YOUTH.—2 s.h. MR. KALE
166. RELIGIOUS EDUCATION OF ADULTS.—2 s.h. MR. KALE
167. HISTORY OF RELIGIOUS EDUCATION IN MODERN TIMES.—3 s.h.  
MR. KALE
169. THEORIES OF RELIGIOUS EDUCATION.—3 s.h. MR. KALE

### PASTORAL CARE

26. (Formerly 251.) INTRODUCTION TO PASTORAL CARE.—2 s.h.  
MR. DICKS
170. SEMINAR IN PASTORAL CARE.—Prerequisite: P.C. 26 or consent of instructor. 2 s.h. class and 1 s.h. clinic. MR. DICKS
171. (Formerly 255.) PASTORAL CARE PRACTICUM I.—Prerequisite: P.C. 26 or consent of instructor. 2 s.h. class and 1 s.h. clinic. MR. DICKS
172. (Formerly 256.) PASTORAL CARE PRACTICUM II.—Prerequisite: P.G. 26 or P.C. 171. 3 s.h. MR. DICKS
173. RELIGION AND HEALTH.—Prerequisite: P.C. 26 or consent of instructor. 2 s.h. MR. DICKS

174. PERSONAL COUNSELING.—2 s.h.

MR. DICKS

[Open to a limited number of first-year students.]

175. (Formerly 351.) THE LITERATURE OF PASTORAL CARE.—Prerequisite: consent of instructor. 2 s.h.

MR. DICKS

176. PASTORAL CARE AND SOCIAL WORK.—2 s.h.

MR. DICKS

[Open to a limited number of first-year students.]

177. ADVANCED SEMINAR IN PASTORAL CARE.—Prerequisite: P.C. 26 or consent of instructor. 2 s.h. class and 1 s.h. clinic.

MR. DICKS

## PREACHING

29-30. SERMON CONSTRUCTION—THEORY AND PRACTICE.—4 s.h.

MR. CLELAND, MR. RUDIN AND MR. DUNN

181. (Formerly 244.) PRACTICAL PROBLEMS IN PREACHING.—Prerequisite: Pr. 29 and 30. 2 s.h.

MR. CLELAND

183. (Formerly 346.) MATERIALS OF PREACHING—BIBLICAL.—2 s.h.

MR. CLELAND

184. PREACHING VALUES IN THE PAULINE EPISTLES.—3 s.h.

MR. CLELAND

185. (Formerly 348.) MATERIALS OF PREACHING—NON-BIBLICAL.—3 s.h.

MR. CLELAND

See also: C.H. 136. PRE-REFORMATION PREACHING.

Psy.R. 127. PSYCHOLOGY OF PREACHING.

## PUBLIC WORSHIP

178. (Formerly 355.) PUBLIC WORSHIP.—3 s.h.

MR. CLELAND AND MR. RUDIN

180. (Formerly 358.) CHURCH MUSIC.—3 s.h.

MR. BARNES

## SPEECH

17. (Formerly 241.) EFFECTIVE SPEAKING.—2 s.h.

MR. RUDIN

132. (Formerly 242.) PUBLIC SPEAKING.—2 s.h.

MR. RUDIN

134. (Formerly 246.) ORAL INTERPRETATION OF LITERATURE.—Prerequisite: Speech 17. 2 s.h.

MR. RUDIN

## *V. Senior Seminars*

In the third year each B.D. candidate will take one Senior Seminar, yielding 2 s.h. credit. No student may enroll in more than one Senior Seminar without special permission of the Dean. Juniors and Middlers are not eligible for credit. Senior Seminars will not yield Graduate School credit, nor be open to special students.

Enrollment in each Senior Seminar shall be normally not more than twelve. No Senior Seminar need be conducted for an enrollment of less than 5 students. Each Senior Seminar will be in charge of a Chairman. Not less than two instructors will participate in each Seminar. General supervision of all Senior Seminars will be exercised by a standing committee of the Faculty.

The work done in each Senior Seminar should be equivalent to

that done in a normal 2 s.h. course, with reading based upon a prepared reading list and a substantial paper or written project report.

## FIRST SEMESTER

61. THE CHRISTIAN FAITH AND ITS PROCLAMATION.—2 s.h.  
MR. CLELAND, MR. CUSHMAN, MR. RUDIN
63. THE ECUMENICAL MOVEMENT IN THE MODERN CHURCH.—2 s.h.  
MR. SMITH, MR. LACY
65. PRACTICAL VALUES OF BIBLICAL RESEARCH.—2 s.h.  
MR. CLARK, MR. STINESPRING
67. THE NEW TESTAMENT AS MATERIALS FOR TEACHING.—2 s.h.  
MR. DICKS, MR. DAVIES, MR. KALE

## SECOND SEMESTER

62. WESTERN CHRISTIANITY AND NON-CHRISTIAN FAITHS.—2 s.h.  
[Not offered in 1953-54.] MR. PETRY, AND OTHERS
64. THE OLD TESTAMENT AS MATERIALS FOR TEACHING.—2 s.h.  
MR. KALE, MR. BROWNLEE, MR. STINESPRING
66. THE CHRISTIAN CHURCH AND SOCIAL CHANGE.—2 s.h.  
MR. BEACH, MR. LACY
68. CHRISTIAN EXPERIENCE AND CONTEMPORARY CHURCH LIFE.—  
2 s.h. MR. WALTON, MR. MYERS, MR. SCHAFER

# Summer Session, 1953

## COURSES OF INSTRUCTION



Courses carrying credit in the Divinity School only are numbered from 101 to 199. Courses approved for credit in both the Divinity School and the Graduate School of Arts and Sciences are numbered above 200. Students entering the Divinity School for the first time in the Summer Session of 1953 will choose courses numbered from 101 to 199.

## First Term: June 10-July 18

- S105 (DS). LIFE OF PAUL.—3 s.h. MR. MYERS
- S111 (DS). INTRODUCTION TO CHRISTIAN SOCIAL ETHICS.—3 s.h.  
MR. BEACH
- S158 (DS). CHRISTIAN EDUCATION AND THE COMMUNITY.—3 s.h.  
MR. KALE
- S178 (DS). PUBLIC WORSHIP.—3 s.h. MR. CLELAND

## Second Term: July 21-August 28

- S197 (DS). CULTURAL HISTORY OF PALESTINE.—3 s.h. MR. STINESPRING
- S199 (DS). THE AMERICAN SOCIAL GOSPEL.—3 s.h. MR. SMITH
- S310 (DS). OLD TESTAMENT PROPHECY.—3 s.h. MR. STINESPRING
- S398 (DS). MODERN AMERICAN CHRISTOLOGY.—3 s.h. MR. SMITH

# Cost, Residential Arrangement, and Student Aid



## *Fees and Costs*

THE University tuition charge is \$175 per semester. Scholarships covering this amount are granted to all Divinity School students. Other charges are as follows:

### *Fees per semester:*

General Fee .....	\$ 50.00
Approximate cost of meals per semester.....	175.00
Room per semester (double room) .....	62.50
Total per semester.....	<u>\$287.50</u>

The "General Fee" is in lieu of all special charges, and includes the following Fees: Matriculation, Medical, Library, Damage, Commencement and Diploma. Divinity School students may secure admission to all regularly scheduled University athletic contests held on the University grounds during the entire academic year by payment of the athletic fee of \$10.00 per year plus any Federal taxes that may be imposed. This fee is payable in the fall semester.

Due to rising costs, a readjustment in charges, including room rents, is being considered. In the event of an adjustment, applicants will be notified.

## LATE REGISTRATION

Students matriculating in either semester at a date later than that prescribed in the catalogue shall pay to the Treasurer of the University a penalty of \$5.00.

## *Living Accommodations*

A description of dining facilities and living quarters is given in the *Bulletin of the Divinity School*.

## *Student Aid*

Duke University remits its regular tuition charges to all students enrolled in the Divinity School. In recognition of this, students are expected to render occasional services such as the teaching of Church



School classes and responding to calls for particular services. Financial aid, over and above this, is available only in the form of grants-in-aid and work scholarships. Those appointed to such work agree to give ten weeks' service during the summer months to a church to which they are assigned. In return they receive their board and room for the period of their summer service and amounts varying up to \$600. By special arrangement a student may be assigned to a church for five weeks' work with one-half the stated remuneration. This plan provides an opportunity for earning a large part of the year's expenses, while at the same time assuring the student valuable experience in religious leadership.

In most cases students will be expected to be able to finance themselves for the first semester of work in the Divinity School; those who show that they can carry their school work satisfactorily are then eligible for various forms of financial assistance.

Students who must have additional income over and above their summer's earnings may secure part-time employment during the academic year. They are strongly urged, however, to make their arrangements so that they will not have duties which will prevent their taking the fullest advantage of the educational and cultural opportunities of the Divinity School.

### FIELD WORK SUPERVISION

The Department of Field Work is maintained to help students receiving financial aid to secure work opportunities where they may render service for such aid. Their work will be supervised so that their experiences may be part of their ministerial training. Students are also helped to secure work opportunities for the experience to be gained. All students working under the department have their board, room, laundry, and travel expenses provided by the charge served. Certain courses are required of all students engaged in field work and are designed to prepare them for the work in which they engage. All students assigned to field work must maintain satisfactory grades and attitudes.

All students working under the Duke Endowment or similar aid are required to attend the Christian Convocation unless excused in writing by the Dean on recommendation of the Director of Field Work.

### LOAN FUNDS

Divinity School students who have satisfactorily completed one semester's work are eligible to apply for loans from the University Loan Funds. Such applications should be filed on the approved forms in the Office of the Secretary of Duke University within the first week of each semester.

## ENDOWED SCHOLARSHIP FUNDS

Certain special scholarship funds have been established, the income of which is available for students wishing to secure training in preparation for the Christian ministry.

These scholarships are all awarded on the basis of service performed in a local church, thus providing experience as well as financial aid for the student. They are listed in the *Bulletin of the Divinity School*.

# THE SCHOOL OF LAW

Fall Semester begins September 17, 1953

Spring Semester begins February 1, 1954

# The School: Its Purposes and Methods



BUILT on the foundation of the School of Law of Trinity College, with its history of legal instruction running back to the middle of the past century, the Duke University School of Law was established in 1924. In 1930 the School was moved into its present building, the Faculty and library were greatly increased, and the activities of the School broadened. The School of Law is a member of the Association of American Law Schools and is on the "Approved List" of the American Bar Association. More than twenty-two states and thirty-six institutions of higher learning are represented in its student body.

The curriculum of the School of Law provides thorough preparation for the practice of law in any state; its graduates have been admitted to the bar in over forty states and the Territory of Hawaii. Opportunities for specialization in particular branches of the law are afforded.

In carrying out the trust imposed by the indenture establishing the Duke Endowment, the School of Law seeks to have the student acquire knowledge and comprehension not only of legal doctrine, but also of the judicial process and of the social, economic, and political problems with which law and lawyers must deal. The method of instruction employed compels analysis of judicial opinions and inquiry into the non-legal as well as the legal considerations which underlie them. In appropriate courses, special consideration is given to the work of the legislative and administrative agencies of government. In recognition of the increasing importance of the role of the lawyer in representing private interests before government agencies and in government service, an unusually broad program is offered in the public law field. Scope for creative student work is provided by seminar courses and supervised individual study and research.

Practical training is not left for the first years of practice. A carefully integrated series of courses is designed to give students actual experience in the work of lawyers. Legal research and writing courses and moot court work in the first and second years are followed in the third by seminar courses emphasizing legal planning and drafting and by practice courses and work in the Legal Aid Clinic. A student bar association affords a means whereby the student may gain acquaintance with the professional organizations through which a lawyer may and should contribute to the well-being of his profession and of society.

For a description of the facilities and activities of the School, see the *Bulletin of the School of Law*.

# Admission, Registration, and Fees



## *Admission*

### DIRECTIONS TO APPLICANTS FOR ADMISSION

**A**PPPLICATION must be made on the prescribed Law School application blank which will be sent upon request. No application can be finally passed upon until all required documents are on file. These documents are: (1) the application itself, to which a recently made personal photograph should be attached; (2) a complete transcript of record and evidence of graduation or right to honorable withdrawal from the institution from which credit is offered; (3) letters from (a) a responsible official of the college attended, and (b) a responsible person in the applicant's home community; (4) a report of the applicant's score on the Law School Admission Test described below; (5) a medical certificate on a form supplied by the Law School.

The Law School seeks to select students who give promise of leadership in some of the various phases of professional activity. Applicants for admission and their sponsors are requested to keep this fact in mind.

The Law School Admission Test, referred to above, is administered by the Educational Testing Service and is participated in by a number of the leading law schools of the country. It is given four times a year at examination centers conveniently located throughout the United States. No special preparation for the test is necessary, since it is designed to measure aptitudes rather than knowledge of subject matter. The applicant's score on the test will be considered along with other data in passing upon his admission to the Law School. Application forms and information concerning the test should be procured by writing directly to the Educational Testing Service, P.O. Box 592, Princeton, New Jersey.

### TIMES OF ADMISSION

Beginning students may enter only at the opening of the Fall semester in any year. Students who have completed the first year of law study at this or any other law school approved by the Association of American Law Schools may enter at the beginning of any semester.

### REQUIREMENTS FOR ADMISSION

An application for admission as a candidate for the degree of



Bachelor of Laws may be submitted by any person (1) who is a graduate of a college of approved standing, or (2) who has completed in a college of approved standing work equivalent in number of units to three-fourths of that required for graduation and whose college work in its entirety shows an average grade equal to that required for graduation, the requirement in each case being determined by the regulations of the college where the work was taken.

### COMBINED COURSE

A number of colleges, upon application by their students, have permitted those who have completed three years of undergraduate work to enter the Law School of Duke University and upon the satisfactory completion of the first year of law school work to receive their Bachelor of Arts degree from such colleges. It is suggested that students desiring to enter Duke University School of Law make inquiry of their proper college authorities regarding this point.

A student from an undergraduate college of Duke University who has completed therein three years of study may apply to that college to enroll in a combined course wherein his first year of law study may be accepted toward the Bachelor of Arts degree, and, upon the completion of four additional semesters of law study, he will receive the Bachelor of Laws degree.

### ADMISSION TO ADVANCED STANDING

Any person who has complied with the requirements for admission set forth in this announcement prior to the commencement of his law study, who presents evidence of the satisfactory completion of at least one year of study at any law school which is a member of the Association of American Law Schools, and who is eligible for readmission to the law school from which he proposes to transfer, may be admitted to advanced standing, subject to such rules as would be applicable to students in this School having a comparable scholastic record. Provisional credit for courses so completed will be given, final credit being conditioned on the completion of at least one full year of law study in this School with an average at least five points above the passing grade. Adjustment of credit for work done in such other law schools may be made by the Dean or by vote of the Faculty.

### CANDIDATES FOR GRADUATE DEGREES

Applications for admission to graduate study should be addressed to the Dean of the Law School and should include transcripts of records of legal and pre-legal work.

## *Registration*

Registration must be completed on the first day of each semester. Instruction will begin in all classes on the following day. Registration is conducted in the Law Building. All students, both old and new, are required to register at the beginning of each semester, at which time class schedules and course cards must be filled out and approved. Students who register in any semester at a date later than that prescribed are required to pay to the Treasurer of the University a penalty of \$5.00 for late registration unless excused therefrom. A student's registration for any semester is not complete until he has paid the tuition and fees for that semester. The \$5.00 penalty for late registration will be imposed, therefore, unless the student has paid his tuition and fees by registration day.

### REGISTRATION FOR BAR EXAMINATION

Many states now require that a student, prior to or shortly after beginning the study of law, register with the board of bar examiners of the state if he intends to practice therein. Each student should write to the secretary of the board of bar examiners of the state in which he plans to practice and ascertain if that state makes this requirement.

### CONDUCT OF STUDENTS

All students are admitted subject to the rules of the University and of the School of Law, and continuance in the School is conditioned upon the observance of such rules.

The University expects of its students loyal and hearty co-operation in developing and maintaining high standards of conduct as well as of scholarship. The University, therefore, reserves the right, and matriculation by the student is a concession of this right, to compel the withdrawal of any student whose conduct at any time is not satisfactory to the University.

## *Fees and Expenses*

Tuition fees are due at the beginning of each semester. The tuition fee is \$175.00 a semester. In addition, a general fee of \$50.00 per semester is required in lieu of separate fees for matriculation, medical service, and the like.

The admission of an applicant is not final until he deposits the sum of \$25.00 with the Treasurer of the University. This deposit will not be returned. It will be credited to the account of the student or, if the student is entitled to the benefits of the Servicemen's Readjustment Act or the Vocational Rehabilitation Act, it will be refunded upon his matriculation.

Law students may secure admission to all regularly scheduled University athletic contests held on the University grounds during the entire academic year by payment of the athletic fee of \$10.00 per year plus any Federal taxes that may be imposed. This fee is payable in the fall semester.

The payment of the general fee entitles the student to full medical and surgical care, with the exceptions noted below. This service is under the direction of the University Physician with the co-operation of the staff of Duke Hospital. It includes hospitalization, medical and surgical care, drugs, dressings, X-ray studies, and ward nursing. A charge for board is made at the same rate as in the University dining halls. Refraction of eyes, treatment of teeth and of all chronic conditions, such as the removal of diseased tonsils, are not included in this service. The cost of any necessary braces and orthopedic appliances, as well as of special nursing, must be borne by the student.

Due to rising costs it may be necessary to consider some readjustment of charges. In the event of an adjustment applicants will be notified.

A statement relative to scholarships, fellowships, and loan funds appears in the *Bulletin of the School of Law*.

### LIVING ACCOMMODATIONS

A description of dining facilities and living quarters is given in the *Bulletin of the School of Law*.

### LAWS REGARDING PAYMENTS

The Executive Committee of Duke University has enacted the following regulations which govern the payment of all fees due the University:

1. The President and the Treasurer of the University have no authority to suspend or in any way alter these regulations.

2. Any student who has failed to pay his bills on the dates advertised in the catalogue is denied the right to attend classes until his account is settled in full; subsequent withdrawal does not entitle a student to a refund.

3. No student is considered by the Faculty as an applicant for graduation until he has settled with the Treasurer for all his indebtedness to the University.

4. No student who has not settled all his bills with the Treasurer of the University is allowed to stand the midyear or final examinations of the academic year.

When a student wishes his bills sent to his parents or guardian, the student or his parent or guardian must so notify the Treasurer of the University in writing in due time, but this in no way releases the

student from liability to established penalties, if his bills are not paid on the dates advertised.

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Further information will be sent upon request. Address

THE DEAN OF THE SCHOOL OF LAW

DUKE UNIVERSITY

Durham, North Carolina

# Bachelor of Laws Degree



UPON favorable recommendation of the Faculty, the degree of Bachelor of Laws will be conferred on students who shall have successfully completed six semesters' study of law, the last two semesters of work immediately preceding the granting of such degree having been completed in this School.

A student shall be deemed to have completed successfully six semesters' study of law if during this period he has

(1) secured a passing grade in courses aggregating seventy-eight semester hours;

(2) secured in every required course a grade not requiring repetition thereof; and

(3) secured a weighted average at least five points above passing in all work taken other than first-year courses, or, if the grade in such work is lower than that above specified, an average grade of five points above passing in all work taken.

Students who have spent only their last two semesters of study in residence in this School must have received a weighted average at least five points above passing for that year.

## MINIMUM AND MAXIMUM STUDENT LOADS

No regular student is permitted to take less than ten course hours per semester. No first-year student is permitted to take courses in excess of the first-year program.

Second- and third-year students are not permitted to take for credit more than fifteen course hours per semester; nor to audit and take for credit more than sixteen course hours per semester. In exceptional cases, students may petition the Faculty for permission to take more or less than the prescribed maximum or minimum loads.

## ATTENDANCE

Regular class attendance is required. The right to take the examinations, as well as the privilege of continuing one's membership in the School at any time, is conditioned upon regular attendance at the exercises of the School.

## STANDARDS OF SCHOLARSHIP

GRADES.—The final grades in each course are given in numerical terms which are equivalent to letter grades according to the following scale: 80 to 100, A; 70-79, B; 55-69, C; 50-54, D; 0-49, F.



A grade of 50 is necessary for passing a course. Where a grade below 50 is given a student in any required course, the course must be repeated if the instructor reports the grade with the notation "must repeat." When a student is required by the instructor to repeat a course which he has failed, the grade given after such repetition supersedes the previous grade in the course.

**ELIGIBILITY TO CONTINUE LAW STUDY.**—Any student who at the end of his first year or at the end of any subsequent semester, has an average grade lower than 50 on all the work then taken is ineligible to continue his work in the School. Any other student (1) whose average final grade at the end of his first semester is below 50, or (2) whose average grade at the end of any subsequent semester on all the work then taken is below 55, or (3) who in any single semester or in any single year receives failure grades in courses totaling eight or more semester hours, may at any time be declared by the Dean ineligible to continue.

**NOTIFICATION OF UNSATISFACTORY SCHOLASTIC STANDING.**—Every student subject to the provisions of the second sentence of the paragraph above, who has not been declared ineligible to continue his work in the School will be given a formal, written notice by the Dean's Office. This notice will set forth his average grade or grades and inform him (1) that he will be subject for the ensuing year to the special supervision of the Dean who may order his dismissal from the School in the event of his failure to maintain a satisfactory scholastic standard, and (2) that he will be ineligible to receive a degree unless his work meets the scholastic requirements for graduation which will be set forth in full in such notice.

Every other student whose average final grade at the end of any semester on the work of that semester, or on all work then taken, does not exceed the minimum average grade required for graduation by more than two points will be given a notice similar to that provided for above.

# Graduate Work in Law



## *Objectives of the Graduate Study Program*

THE graduate program of the School of Law is framed with a view to the encouragement and recognition of legal scholarship. It is addressed to the needs of those who have objectives consistent with the purposes of graduate legal education. It provides training for the qualified student who aspires to a teaching career, or who wishes to become proficient in a special field of the law, to do serious legal research, to prepare himself for a public law practice in or out of government, or to acquire a broader and deeper legal education than the undergraduate curriculum offers.

## *Master of Laws*

### ADMISSION TO CANDIDACY FOR THE DEGREE OF MASTER OF LAWS

Any person who has received the first degree in law from a law school qualified for membership in the Association of American Law Schools may be admitted as a candidate for the degree of Master of Laws, provided he satisfies the Committee on Graduate Study that his objective in desiring to do graduate work in law is consistent with the purposes for which the program is offered, and provided he demonstrates to the Committee, on the basis of his law school record, his capacity to take and profit by graduate work in law. In exceptional cases an applicant who does not meet the above requirements may, on vote of the Faculty, be admitted to candidacy for this degree if he is able to demonstrate that he is specially qualified, as by reason of practice or teaching. Normally the applicant will be required to show a level of scholarship appreciably higher than that required for the first degree in law at the institution from which he received that degree. An exceptionally high record in law school and in the graduate study program is expected of those who aspire to a teaching career. It should be emphasized that the graduate study program is designed for graduates with a definite objective, not for those who seek to pursue further law study simply from disorientation.

## REQUIREMENTS FOR THE DEGREE OF MASTER OF LAWS

The degree of Master of Laws is reserved for students who, having demonstrated their capacity for graduate work in law, maintain a level of scholarship substantially higher than that required for the degree of Bachelor of Laws.

The candidate for this degree is required to complete a course of study comprising not less than twenty nor more than twenty-six semester hours, or approved research equivalent thereto. Two full semesters are required for the completion of this program. A candidate for this degree is required to include in his course of study at least two of the following courses: International Law, Jurisprudence, and Legal History. In addition to the minimum requirement of twenty semester-hours, the candidate is required to submit an essay representing substantial research on a legal subject. This essay is to be prepared under the supervision of the instructor in charge of the field in which the research is done. The candidate will find it helpful to have formulated a project of research, or alternative projects, before his admission to graduate study or, at any rate, before pursuing his graduate study in residence.

The candidate's course of study will be selected, ordinarily, from the following list of courses: Public Regulation of Business Seminar, Jurisprudence, Conflict of Laws, International Law, Legal History, Advanced Legal Accounting, Corporate Planning, Debtors' Estates, Insurance, Corporate Reorganization, Securities Regulation, Credit and Insolvency, Family Law, Family Law Seminar, Future Interests, Tax and Estate Planning, Labor Relations, Labor Standards, Labor Law Seminar, Federal Income Taxation, Federal Estate and Gift Taxation, and State Taxation. This program of study is not inflexible. In appropriate cases the candidate will be encouraged to take related work in other departments of the University. Other courses of comparable content may be substituted for those listed. In special circumstances, credit not in excess of two hours per semester may be arranged for special, supervised research projects.

### *Doctor of Juridical Science*

#### ADMISSION TO CANDIDACY FOR THE DEGREE OF DOCTOR OF JURIDICAL SCIENCE

Any person holding the degree of Master of Laws from this or any other law school which is qualified for membership in the Association of American Law Schools may, on vote of the Faculty, be admitted to candidacy for the degree of Doctor of Juridical Science, provided he completed the work for the Master's degree with distinction.

REQUIREMENTS FOR THE DEGREE OF DOCTOR  
OF JURIDICAL SCIENCE

Upon favorable recommendation of the Faculty, the degree of Doctor of Juridical Science will be conferred on students admitted to candidacy for that degree who complete and submit a monograph or series of essays suitable for publication and deemed by the Faculty to be of distinguished character and who pass an oral examination before a special committee appointed for that examination. At least one academic year, and, in the absence of an extension granted by the Faculty, not more than three years, must elapse between the award of the Master's degree and the award of the degree of Doctor of Juridical Science. Students who have received the degree of Master of Laws from another law school must spend at least two full semesters engaged in research at this School, and in addition may be required to complete a course of study prescribed by the Committee on Graduate Study. The monograph or series of essays required may be based upon, or be an extension of, the essay required for the Master's degree, provided substantial additional research is represented.

*Post-Graduate and Refresher Courses*

The School of Law provides instruction for students not meeting the requirements for admission to candidacy for graduate degrees who desire refresher courses or who desire simply to complete a fourth year of law school work. The successful completion of the courses taken by such students may be evidenced by certificate of the Dean.

# Program of Instruction



THE program of instruction of the School of Law has been thoroughly revised as a result of studies made by the Faculty. The curriculum had become overcrowded. For years new courses have been added at this and other schools as new fields of law have become important; old courses have been retained. Students who wished to specialize in particular fields often found it necessary to omit some of the older, more fundamental courses. Insufficient attention had been given to legal writing, the drafting of legal instruments, and legal planning.

The newly adopted curriculum is designed to insure that students may prepare to specialize in practice without foregoing any part of the basic legal education required for general practice and desirable for all specialists. Courses have been combined; duplications in courses have been eliminated. The larger part of students' third year has been opened for studies of specialties. New courses and seminars have been added, especially in the third year in which teaching methods will be different from those used in the older courses. In these courses and seminars legal writing and drafting and legal planning will be emphasized.

The courses offered are listed below. They are grouped under three headings: First-Year Program; Second-Year Program, and Third-Year Courses. At page 30 the individual courses are described; in that section of the Bulletin they are grouped under the following headings: Business Courses; Property Courses; Public Law Courses; General Courses; Procedure and Practice Courses.

THE FIRST-YEAR PROGRAM is prescribed. It includes basic courses in the fields of contracts, business associations, property (including sales and other chattel transactions), and torts. These courses serve also to acquaint the student with the nature of the judicial process (which is stressed in Chattel Transactions), the court system and court procedure (stressed in Torts), and legal history (stressed in the second property course and in other courses). In the field of public law, legislation and the legislative process are studied in the first semester; criminal law and procedure is given throughout the year. A course in research and writing (which is continued through the first semester of the second year), after consideration of how the law is found in law books, trains students in writing memoranda of law and legal arguments and in drafting legal documents; the course



emphasizes, for each student, the law of the state in which he intends to practice, and introduces students to the art of legal planning. It includes the preparation of briefs and the arguing of moot court cases.

THE SECOND-YEAR PROGRAM comprises nearly all the other basic courses which all students need regardless of what kind of law practice they plan to enter and the courses prerequisite to third-year work in special fields and in legal planning. Third-year courses may be substituted for courses in this program only upon approval of the Faculty upon petition. The research and writing course continues through the fall semester. The basic work in property and business associations is completed. In the field of business transactions, the students study negotiable instruments and credit. A course in federal income taxation, basic to advanced third-year work for specialists, adequately covers the subject for students not planning to specialize in it. Legal and equitable remedies, and court procedure in civil cases, are studied in the course in remedies. Students continue their study of public law in courses in constitutional and administrative law.

THE THIRD-YEAR COURSES (of which an aggregate of 10 to 15 hours each semester is to be selected by each student) are designed to emphasize legal planning and drafting and to enable students to equip themselves to specialize in particular fields. The faculty recommends that all students complete their basic legal education by taking courses in evidence and legal ethics. There are also fundamental courses in legal history and jurisprudence and in conflict of laws and international law. The rest of the third-year courses are in specialties; they are grouped below under the headings (1) business (including *inter alia* advanced corporation law), (2) estates, family, and property, (3) procedure, practice, and local law, and (4) public law (including *inter alia* labor law and taxation). A number of these specialty courses (those preceded by asterisks in the list below) emphasize legal planning and drafting. Each student is required to include two of these courses in his third-year program; enrollment in each is limited.

### *The First-Year Program*

	SEMESTER HOURS	
	Fall	Spring
Chattel Transactions .....	2	
Sales [Part Only] .....		2
Contracts .....	4	2
Criminal Law and Procedure.....	2	2
Torts and Introduction to Civil Procedure.....	3	2
Research and Writing I.....	1	1
Legislation .....	3	
Business Associations I .....		3
Estates in Land.....		3
	—	—
	15	15

## *The Second-Year Program*

	SEMESTER HOURS	
	Fall	Spring
Civil Procedure I.....	3	2
Constitutional Law and Federal Courts.....	3	2
Business Associations II .....	3	
Conveyancing .....	3	
Research and Writing II.....	1	
Restitution & Equitable Remedies.....	2	
Administrative Law .....		3
Credit Transactions .....		3
Federal Income Taxation .....		3
Negotiable Instruments .....		2
	15	15

## *The Third-Year Courses*

Students are to select courses aggregating 10 to 15 hours each semester. Every student must select two of the starred courses listed under "B. Specialties." These courses emphasize legal planning and drafting. Enrollment in each of them except Legal Aid Clinic is limited to 15. Legal Aid Clinic counts as a single starred course, though it is a year course. No student may take more than two starred courses in the same semester without the consent of the Dean and of the instructors in the starred courses involved.

### A. ADVANCED COURSES

Conflict of Laws .....	3	
International Law .....	3	
Jurisprudence .....	3	
Legal History .....		2

### B. SPECIALTIES

#### I. Business (See also "IV. Public Law.")

*Corporate Planning and Drafting .....	2	
*Insurance .....	2	
*Debtors' Estates .....	2	
*Advanced Legal Accounting (Not Offered 1953-54) .....		2
*Securities Regulation (Not Offered 1953-54, 1954-55) .....		2

#### II. Estates, Family, Property

Family Law .....	2	
Future Interests .....	3	
Trusts .....	3	
Family Law Seminar .....		2
*Tax and Estate Planning .....		2
Wills and Administration of Estates.....		3

#### III. Procedure, Practice and Local Law

Evidence .....	2	2
*Legal Aid Clinic .....	2	2
*Case Studies .....	1	
North Carolina Statutes and Decisions.....	2	
Civil Procedure II .....		3
Legal Ethics .....		1
North Carolina Practice .....		2

IV. Public Law

Federal Estate & Gift Taxation.....	3
Labor Relations .....	3
Municipal Corporations .....	2
*Constitutional Law & Federal Courts Seminar	
(Not Offered 1953-54) .....	2
*Labor Law Seminar .....	2
Labor Standards .....	2
*Public Regulation of Business Seminar.....	3
State Taxation (Not Offered 1953-54) .....	2
*Tax and Estate Planning .....	2

# Description of Courses



## *Business Courses*

- ADVANCED LEGAL ACCOUNTING. Two hours a week second semester.  
Mr. LATTY
- BUSINESS ASSOCIATIONS I. Three hours a week second semester.  
Mr. KRAMER
- BUSINESS ASSOCIATIONS II. Three hours a week first semester.  
Mr. LATTY
- CONTRACTS. Four hours a week first semester, two hours a week, second semester.  
Mr. STANSBURY
- CORPORATE PLANNING AND DRAFTING. Two hours a week first semester  
Mr. LATTY
- CREDIT TRANSACTIONS. Three hours a week second semester.  
To Be Announced
- DEBTORS' ESTATES. Two hours a week first semester. To Be Announced
- INSURANCE. Two hours a week first semester. Mr. McDERMOTT
- NEGOTIABLE INSTRUMENTS. Two hours a week second semester.  
Mr. LOWNDES
- PUBLIC REGULATION OF BUSINESS SEMINAR. Three hours a week second semester.  
Mr. LIVENGOOD AND MEMBERS OF THE ECONOMICS DEPARTMENT STAFF
- SECURITIES REGULATION. Two hours a week second semester.  
Mr. LATTY

## *Property Courses*

- CHATTEL TRANSACTIONS. Two hours a week first semester. Mr. LATTY
- CONVEYANCING. Three hours a week first semester. Mr. BOLICH
- ESTATES IN LAND. Three hours a week second semester. Mr. BOLICH
- FUTURE INTERESTS. Three hours a week first semester. Mr. BOLICH
- TAX AND ESTATE PLANNING. Two hours a week second semester.  
Mr. BOLICH AND Mr. LOWNDES
- TRUSTS. Three hours a week first semester. Mr. LOWNDES
- WILLS AND ADMINISTRATION OF ESTATES. Three hours a week second semester.  
Mr. McDERMOTT

## *Public Law Courses*

- ADMINISTRATIVE LAW. Three hours a week second semester.  
Mr. KRAMER
- CONSTITUTIONAL LAW AND FEDERAL COURTS. Three hours a week first semester, two hours a week second semester.  
Mr. MAGGS

CONSTITUTIONAL LAW AND FEDERAL COURTS SEMINAR. Two hours a week second semester. Mr. MAGGS

CRIMINAL LAW AND PROCEDURE. Two hours a week throughout the year. Mr. McCLAIN

CRIMINAL LAW AND PROCEDURE (ADVANCED). Two hours a week first semester. Mr. LIVENGOOD

FEDERAL INCOME TAXATION. Three hours a week second semester. Mr. LOWND'S

FEDERAL ESTATE AND GIFT TAXATION. Three hours a week first semester. Mr. LOWNDES

INTERNATIONAL LAW. Three hours a week second semester Mr. WILSON

LABOR LAW SEMINAR. Prerequisite: Labor Relations. Two hours a week second semester. Mr. LIVENGOOD

LABOR RELATIONS. Three hours a week first semester. Mr. LIVENGOOD

LABOR STANDARDS. Two hours a week second semester. Mr. LIVENGOOD

LEGISLATION. Three hours a week first semester. Mr. LIVENGOOD

MUNICIPAL CORPORATIONS. Two hours a week first semester. Mr. McDERMOTT

PUBLIC REGULATION OF BUSINESS SEMINAR. Three hours a week second semester. Mr. LIVENGOOD AND MEMBERS OF THE ECONOMICS DEPARTMENT STAFF

STATE TAXATION. Two hours a week second semester. Mr. LOWNDES

TAX AND ESTATE PLANNING. Two hours a week second semester. Mr. BOLICH AND Mr. LOWNDES

### *General Courses*

CONFLICTS OF LAWS. Three hours a week second semester. Mr. STANSBURY

FAMILY LAW. Two hours a week first semester. Mr. BRADWAY

SEMINAR IN FAMILY LAW. Family Law is prerequisite. Two hours a week second semester. Mr. BRADWAY

JURISPRUDENCE. Three hours a week first semester. Mr. KRAMER

LEGAL HISTORY. Two hours a week second semester. Mr. BOLICH

NORTH CAROLINA STATUTES AND DECISIONS. Two hours a week first semester. Mr. BRYSON

RESTITUTION AND EQUITABLE REMEDIES. Two hours a week first semester. Mr. STANSBURY

TORTS AND INTRODUCTION TO PROCEDURE. Three hours a week first semester, two hours a week second semester. Mr. MAGGS

### *Procedure and Practice Courses*

CASE STUDIES. One hour a week first semester. INSTRUCTOR TO BE ANNOUNCED

CIVIL PROCEDURE I. Three hours a week first semester, two hours a week second semester. Mr. McCLAIN

CIVIL PROCEDURE II. Three hours a week second semester. Mr. MAGGS

EVIDENCE. Two hours a week throughout the year. Mr. McDERMOTT



- LEGAL AID CLINIC. Two hours a week throughout the year. MR. BRADWAY  
LEGAL ETHICS. One hour a week second semester. MR. BRADWAY  
NORTH CAROLINA PRACTICE. Two hours a week second semester.  
MR. BRYSON

### *Legal Research and Writing*

- RESEARCH AND WRITING I. Two semester-hours credit.  
MESSRS. STANSBURY, BRYSON, AND BRADWAY  
RESEARCH AND WRITING II. One semester-hour credit.  
MESSRS. STANSBURY, BRYSON, AND BRADWAY

Upon recommendation of the Committee on Graduate Study, seminars not listed in the Bulletin may be created or arrangements made for supervision of special research by individual graduate students in any subject.

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All matters presented in this Bulletin are subject to change as the University or the School of Law may deem expedient.



## THE SCHOOL OF MEDICINE

Winter Quarter, 1953, begins January 5;

Spring Quarter, 1953, begins March 30;

Summer Quarter, 1953, begins July 6;

Autumn Quarter, 1953, begins October 5;

Winter Quarter, 1954, begins January 4;

Spring Quarter, 1954, begins March 29;

Summer Quarter, 1954, begins July 6;

Autumn Quarter, 1954, begins October 4.

# General Statement



DUKE UNIVERSITY School of Medicine and Duke Hospital were established in 1930, through the munificent gift of the late James B. Duke. The School of Medicine has been planned to insure the greatest correlation between the various departments. These facilities are available also for students who are studying for degrees other than that of Doctor of Medicine. The School of Medicine has been approved as Class A by the American Medical Association and is also a member of the Association of the American Medical Colleges. On September 29, 1952, three hundred and fifteen students were enrolled.

## *Aims of the School*

Duke University School of Medicine, from its beginning in 1930, has maintained as its major objectives: (a) the cultivation and teaching of medicine on a strictly scientific basis; (b) the correlation of medical research with medical teaching at all levels of its teaching, and (c) the continuous search for and experimentation with new or improved methods of teaching scientific medicine. In order to attain these objectives, the School has been organized, its physical plant planned, and its administrative structure constituted so that there exists the closest possible academic and physical relationship between undergraduate and graduate work in the University and the School of Medicine, and also between the basic medical sciences and the clinical sciences within the School and its integrated teaching Hospital. The professional staff of the School is composed of two general categories, those with permanent appointment and unlimited tenure, and those with temporary appointment. The latter, the much larger group, is maintained on a highly fluid basis, which makes possible a high degree of selectivity in appointment for academic training and scientific research. The smaller group of permanent appointees has in every individual a background characterized by academic and scientific attainment. The professional, academic, and scientific environment created by the staff is thus such as to engender scientific inquiry and to encourage diligent pursuit of the medical sciences in all their relationships. The staff at all levels devotes its entire professional time to the activities of the School or Hospital.

## *Facilities of the Hospital*

Duke Hospital, an integral part of Duke University School of Medicine, has every modern convenience for the diagnosis, proper care, welfare and comfort of the patients, both ward and private, white and colored, whether they come from Durham or from a distance. It has 591 beds, including 30 bassinets for newborn infants, and 20 premature nursery bassinets. *Medicine*, including dermatology and neurology, has 77 ward beds; *surgery*, including urology, otolaryngology, ophthalmology, and orthopaedics, 135 ward beds; *obstetrics*, including *gynecology*, 59, and 50 bassinets; *neuropsychiatry*, 9; and *pediatrics*, 40. There are 209 private rooms and semiprivate cubicles, 12 air-conditioned operating rooms, 4 obstetric delivery rooms, and ward and student laboratories. Offices and examining rooms for members of the Medical Faculty are located in the Hospital. The Hospital has been approved for internships and residencies by the Council on Medical Education and Hospitals of the American Medical Association, and the American College of Surgeons.

Duke Hospital and its Out-Patient Clinic were opened for patients on July 21, 1930. Through December 31, 1951, 429,700 individuals have been examined, diagnosed, and treated. The average daily census of hospital patients during the past year was 466; 106,820 visits were made to the Out-Patient Clinic during the same period. Twenty-one per cent of the patients come from within a radius of twenty miles, the remaining 79 per cent come from the other 99 counties in North Carolina and from 36 other states and 3 foreign countries. The average distance traveled by the patients is more than seventy miles.

The Private Diagnostic Clinic was organized to co-ordinate the diagnostic studies, and to give better care to the complicated problems arising in the examination of private patients. The Clinical Staff of Duke Hospital and School of Medicine forms the professional staff of this clinic, while the financial side is handled by a business manager. The offices and examining rooms are in Duke Hospital, and all of the laboratory and diagnostic facilities of the Hospital and School of Medicine are utilized by the Clinic.

## *Library*

*"To study the phenomena of disease without books is to sail an uncharted sea, while to study books without patients is not to go to sea at all."*—SIR WILLIAM OSLER.

In addition to the General Library of Duke University and the departmental libraries of biology, chemistry, physics, etc., which have 1,032,508 volumes available for medical students, Duke Hospital Library contains 54,000 volumes of American and foreign medical literature and subscribes to 585 current American and foreign medical



and other scientific journals. These books and journals are available daily from 8:30 A.M. to 10:30 P.M. for the students, nurses, staff, and medical profession.

### *Medical Care*

With exceptions noted below, full medical and surgical care is furnished to all regularly matriculated medical students of the University who have paid the quarterly General Fee. This service is under the direction of the Physician in Charge with the co-operation of the Staff of Duke Hospital. It includes hospitalization (limited to thirty days), medical and surgical care, drugs, dressings, x-ray studies, and ward but not special nursing. A charge for board is made at the same rate as in the University dining halls. Refraction of eyes and treatment of teeth and of all chronic and pre-existing conditions, such as diseased tonsils, hernia, elective surgery, chronic skin conditions, endocrine disturbances, etc., or accidents or illnesses occurring during vacations or while off the campus are not included in this service. The cost of any necessary braces and orthopaedic appliances, as well as of special nursing must be borne by the patient. If the student has insurance providing hospitalization, surgical, or medical benefits, the benefits shall be applied to the cost of his medical care.

### *Student Government*

The members of the student body elect an Honor Council, in which each class is represented. It is the duty of the Honor Council to hear all cases involving breaches of conduct on the part of members of the student body. All new students entering the School are required to comply with this system of government.

### *Medical Military Science and Tactics*

The course consists of instruction in military medicine and military science and tactics. The student receives compensation during the last two years and while at a required summer encampment. Those completing the program will be offered reserve commissions in the Army Medical Corps or the Air Force Medical Corps and will be given priority in the selection of interns for military hospitals. Details of the program, eligibility, compensation, etc., may be obtained by addressing the PMS&T, Duke University School of Medicine.

# Curriculum of the School of Medicine



THERE is no summer quarter between the first and second years, but in the two clinical years the subjects of the autumn, winter and spring terms are repeated in the summer quarter. This accelerated schedule is optional,\* and students may take their first year, and three quarters in each of their subsequent years, and receive their certificates in four calendar years, *or*, if they receive permission from the Curriculum Committee, they may at the end of their second year take the clinical quarters given during the summers and receive their certificates in three and one quarter calendar years.

Every effort is made to emphasize the close relationship of pre-clinical and clinical instruction. Members of the clinical staff assist in the teaching of preclinical subjects and demonstrate to the students of the first two years patients whose conditions illustrate the subjects being taught. Thus, from the student's first days, he is impressed with the interdependence of all branches of medical science. In the junior and senior years, preclinical instructors assist the clinical staff in presenting the underlying basis of disease.

The free time in this curriculum may be spent in elective work or anything else the student wishes to do. No credits are given, but opportunity is provided for each student on his own initiative to obtain additional training which he may feel to be necessary or desirable. Elective courses have been organized for small groups, or the time may be utilized in independent work (including research) in any department, clinical or preclinical. Arrangements for taking such courses or doing other work are to be made through the Curriculum Committee.

It is hoped that many students will migrate to other medical schools for one or more quarters. Those who wish to do so, or to substitute a schedule different from that listed below, must have their programs approved in advance by the Curriculum Committee, and afterwards must present evidence that they have completed work comparable to that of the curriculum during the quarters in which they were away or were following an altered schedule.

\* See footnote on the next page.

## OPTIONAL ACCELERATED SCHEDULE\*

(The hours for these courses will be posted on the bulletin board.)

## FIRST YEAR

29 September 1952 to 7 February 1953.	
Anatomy (including histology and neuroanatomy) .....	638
9 February to 13 June 1953.	
Physiology .....	341
Biochemistry .....	279
Psychobiology .....	12
Free time .....	17

## SECOND YEAR

AUTUMN QUARTER (4th):	
29 September to 13 December 1952.	
Pharmacology .....	143
Bacteriology .....	176
Parasitology .....	44
Public Health and Biostatistics .....	66
WINTER QUARTER (5th):	
5 January to 21 March 1953.	
Pathology .....	231
Public Health .....	66
Introduction to Medicine and Surgery .....	132
SPRING QUARTER (6th):	
30 March to 13 June 1953.	
Pathology .....	223
Introduction to Medicine .....	111
Clinical Microscopy .....	95

## JUNIOR YEAR

SUMMER QUARTER (7th):*	
6 July to 19 September 1953.	
Medicine (Junior) .....	429
AUTUMN QUARTER (8th):*	
5 October to 19 December 1953.	
Surgery (Junior) .....	429
WINTER QUARTER (9th):*	
5 January to 21 March 1953.	
Obstetrics and Gynecology (Junior) .....	352
Neuropsychiatry .....	77

## SENIOR YEAR

SPRING QUARTER (10th):*	
30 March to 13 June 1953.	
Medicine (Senior) .....	390
Free time .....	39
SUMMER QUARTER (11th):*	
6 July to 19 September 1953.	
Surgery (Senior) including urology and orthopaedics .....	390
Electives .....	39
AUTUMN QUARTER (12th):*	
5 October to 19 December 1953.	
Pediatrics .....	297

\* This optional schedule may be made compulsory, and a thirteenth elective quarter may be added to the senior year.

The clinical instruction is repeated each quarter in order to utilize all the clinical material and to have small groups of students. Consequently, students may vary the order of the seventh, eighth, and ninth quarters, and also the order of the tenth, eleventh, and twelfth quarters. The above schedule merely illustrates the program of one group.

Surgery .....	41
Neuropsychiatry .....	41
Preventive Medicine .....	11
Electives .....	39

## SUMMARY

Total number of hours in curriculum .....	5,148
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## *Requirements for the Degree of Bachelor of Science in Medicine*

After the completion of six quarters in the Duke University School of Medicine, Duke University, on the recommendation of the Committee on Health Affairs grants the degree of Bachelor of Science in Medicine to medical students who have completed creditable investigative work, prepared an acceptable report of the investigation, and passed an examination upon the subject of the investigation before an advisory committee. Students who elect to undertake work toward this degree must obtain written permission from the Committee on Health Affairs after approval of their program by the head of the department in which the work is to be done. No credit toward this degree is given for additional college work. All students in good standing are encouraged to undertake such investigative work as they may elect with the approval of the head of the department in which they wish to work. All requirements must be completed three months prior to the date on which the B.S. degree is requested.

## *Requirements for the Degree of Doctor of Medicine*

The degree of Doctor of Medicine is conferred on those who have completed, to the satisfaction of the Committee on Health Affairs, the twelve quarters of 11-12 weeks each of the curriculum of the School of Medicine, the preclinical and clinical examinations, and have signed an agreement that they will spend at least two years of the succeeding three years in hospital or laboratory work acceptable to the Committee on Health Affairs. As a guarantee of this pledge the diploma is deposited in the Treasurer's Office until after the completion of this training. Failure to fulfill this agreement constitutes a waiver of any claim to possession of the diploma and the degree of Doctor of Medicine. At present, one half of the required period of approved hospital or laboratory training may be active duty in the Army, Navy or U. S. Public Health Service.

# Admission



## *Application for Admission*

APPLICATION forms may be obtained by writing to the Committee on Admission, Duke University School of Medicine, Durham, N. C. A check or post office money order for \$5, payable to Duke University School of Medicine, must accompany each request for an application. This is not refundable. If further information is required after the Committee has studied the completed application, a personal interview with the Committee on Admission or a Regional Representative is arranged for the applicant. The candidate then is notified as soon as possible whether he has been accepted or declined; if accepted, he must send a deposit of \$50 by January 1 to insure enrollment. This money is applied toward the tuition. The next first-year class will be admitted October 5, 1953. Applications must be submitted prior to December 1 of the preceding year. Due to the large number of applicants to all medical schools, candidates are advised to apply to at least four schools. The number of students in each class is limited to 76, but only those students will be accepted who give promise of being a credit to the School and the medical profession. Women are received on the same terms as men. In the event of vacancies, students from other medical schools may be considered for admission to any quarter for which their previous training has fitted them. Each application for advanced standing will be considered upon its own merits.

## *Requirements for Admission*

*"I request that great care and discrimination be exercised in admitting as students only those whose previous record shows a character, determination and application evincing a wholesome and real ambition for life."—JAMES B. DUKE.*

*Intelligence and character are the essential qualifications for admission.*

The minimum requirements for admission to this School include approved college credits of not less than ninety semester hours, which shall include adequate preparation in English, mathematics, physics, biology, and chemistry. This preparation should be obtained in college courses of one-year duration, except in English and chemistry. In those subjects, two years are recommended. The second year in English should be chiefly composition and theme writing. The first year of chemistry should be general (inorganic), and the second,



analytic and organic chemistry.

A premedical student should be aware of the importance of a well-rounded general education as a preparation for the study of medicine and not limit himself to scientific courses. He would be better advised to secure a knowledge of the principles and a thorough appreciation of the interrelations of the basic sciences than to accumulate credits in many courses. He should learn how to work independently, to observe critically, and to analyze, rather than simply store, the information presented. His choice of studies, beyond those required for admission, should be governed by his own chief interests and by the intellectual stimulus to be derived from the work. His major interest may be in any field, scientific or otherwise, and should provide an opportunity for the demonstration of his real ability. In general, he should avoid courses in subjects which are included in the medical curriculum.

The selection of students is based upon the quality rather than the quantity of preparation and upon demonstrated evidence of personal attributes of intelligence, character, and general fitness for the study and practice of medicine. In considering an applicant many sources of information may be consulted including (1) his curricular and extracurricular college record, (2) carefully prepared, confidential appraisals by teachers who know him personally, (3) his percentile rating on the Medical College Admission Test,\* and (4) the results of an interview with members of the Admission Committee or one of its Regional Representatives.

\* This test is given at many of the colleges during the spring and autumn terms. If information is not available locally, it may be obtained from the Educational Testing Service, P. O. Box 592, Princeton, N. J.

# Fees and Expenses



ALL FEES for each quarter are due and payable at the beginning of each quarter, and no student will be admitted to classes until these fees have been paid at the University Treasurer's Office. A fine of \$5.00 is charged for late registration. No credit will be given for any quarter in which the tuition has not been paid at the Treasurer's Office, whether the work has been done here or elsewhere, except that students who have been permitted by the Curriculum Committee to spend a quarter at another medical school or hospital may subtract the amount of tuition paid at this other medical school or hospital from that due here for that quarter.

It is not advisable for a student to attempt outside work to defray his expenses; the results usually are disastrous to his health and academic standing.

## FEES AND EXPENSES

Tuition, per quarter .....	\$300		
General Fee, per quarter, including Health, Commencement, and Diploma Fees .....	7.50		
Athletic Fee, not including Federal tax, optional, per year, payable in the autumn quarter .....	10.00		
Room-rent, per quarter* (estimated) .....	58.50		
Board, per quarter (estimated) .....	120	to	130
Laundry, per quarter (estimated) .....	10	to	20
Books, per quarter (estimated) .....	25	to	50
National Board of Medical Examiners, Fees† \$25 (Part I), \$20 (Part II)			
Microscope, ophthalmoscope, otoscope, and other equipment, which are required of each student and which must conform to rigid standards, may be obtained on a rental basis from the Univer- sity, per quarter .....	45	to	65
Estimated total expenses, per month .....	150	to	250

\* Information and the regulations about rooms in the Men's Graduate Center and Epworth Hall on the Woman's College Campus can be obtained by writing to the Duke University Housing Bureau, Durham, N. C. All dormitory rooms are occupied under the rules and regulations established by the University. Residence in University dormitories is not required. Rooms may be reserved by new applicants only if they have been accepted officially for admission to the University and if they have paid a room deposit of \$25 to the Duke University Housing Bureau. The room deposit is refundable providing application for refund is made 60 days prior to the registration date of the semester for which the room is reserved or within 30 days after official withdrawal from the University Residence Hall. Students already in residence may retain their rooms for the succeeding quarter by applying to the Duke University Housing Bureau for confirmation of the reservation.

† Payable at the beginning of the quarter in which a student is eligible for the examination.

# Departments of Instruction



## *Anatomy*

The required courses of instruction in gross human anatomy, histology, and neurology are scheduled for five and one-half days a week for a period of eighteen weeks during the first year. Emphasis is placed upon the study of material in the laboratory. In an attempt to utilize more fully the laboratory time, visual educational methods are employed as fully as possible. These techniques consist of colored motion pictures of demonstration dissections, colored lantern slides, and motion pictures, both embryological and neurological. All of the instruction is designed to be as informal and as nearly individual as possible. General principles and the functional viewpoint of living anatomy are stressed in the hope that the student may be stimulated to secure a working knowledge of anatomy in the broadest sense. Whenever possible, fresh tissues and living cells are made available for examination, and clinical cases exemplifying anatomical principles are studied whenever they are available at appropriate times. Through the co-operation of the Department of Radiology, the students are given an opportunity to study portions of the living human body as revealed by the fluoroscope and roentgenograph. The following elective courses are offered:

*Demonstrations in Anatomy.* Using dissections already prepared, weekly demonstrations of selected regions or systems are made by the members of the group. Sixth quarter—Two hours per week by arrangement. Second-year students in groups of 10.

*Review in Anatomy.* During the sixth quarter, a review in anatomy will be presented by the visual education methods outlined above, covering gross and neuro-anatomy, and histology.

*Special Neuro-anatomy.* Laboratory work and conferences upon selected portions of the human central nervous system. Limited to 6 junior or senior students. Two hours weekly by arrangement.

*Brain Modeling.* Free-hand reconstruction in clay, from gross and sectioned material, of the chief tracts and nuclei of the human brain stem. By arrangement—4 to 10 students.

*Experimental Neurology.* An operative and laboratory study of the effect of various lesions upon the central and peripheral portions of the nervous system. 4 to 8 junior and senior students by arrangement. Prerequisite—operative surgery.

*Advanced Studies in Anatomy.* These may be arranged at any time under the direction of the various members of the staff.

*Review for Orthopaedic Anatomy.* A one hour weekly review of the anatomy related to orthopaedic surgery.

*Review for Surgical Anatomy.* A one hour weekly review of the anatomy related to general surgery.

## *Biochemistry*

The required course in general biochemistry for first-year students is given over a period of eighteen weeks during the first year. Two lectures, four laboratory periods, and one conference period per week are devoted first to the correlation of the fundamental facts and theories of physical and organic chemistry of proteins, fats, and carbohydrates with the chemistry of living organisms; followed by an intensive study of the chemical aspects of the processes of digestion, absorption, circulation and respiration, acid-base and salt equilibrium, intermediary and over-all metabolism. Each student carries out on himself a fairly complete metabolism balance study involving quantitative analyses of blood and urine.

Since the success of the students in this course is largely determined by the adequacy and ready availability of their premedical training, it is urged that all students review the fundamental laws, theories, and facts of chemistry before the beginning of the course. A circular outlining the topics requiring special attention is sent to all students upon admission. Additional copies of the circular may be obtained from the Dean's Office.

*Biochemical Research.* The facilities of the department, including various types of research equipment and the clinical material of the blood chemistry laboratory, are available to properly qualified students for independent or supervised investigations. Chemical investigations of problems in biochemistry or in conjunction with the clinical and pathological departments may be carried on.

*Chemistry of Proteins and Enzymes.* A two-hour seminar is given weekly throughout the Autumn, Winter and Spring Quarters.

*Physical Biochemistry.* A two-hour lecture course with demonstrations, given weekly in Autumn and Winter Quarters. Given alternately with *Chemistry of Proteins and Enzymes*.

*Intermediary Metabolism.* A two-hour lecture course and seminar conducted during Autumn, Winter and Spring Quarters. Given alternately with *Seminar in Nutrition*.

*Advanced Seminar in Nutrition.* A two-hour lecture and seminar course in modern nutritional concepts. Given alternately with *Intermediary Metabolism* during Autumn Quarter.

*Biochemistry of Disease.* A seminar course meeting once weekly to discuss etiology and pathogenesis of metabolic diseases from the biochemical viewpoint. Given in alternate years in the Spring Quarter.

## *Physiology and Pharmacology*

The course in medical physiology for first-year students is given over a period of eighteen weeks during the first year. There are lectures, laboratories, and conferences each week in which are presented the general principles of human physiology and their general application to the practice of medicine. This course runs parallel to biochemistry.

The course in pharmacology is given in the first quarter of the second year. Lectures, laboratories, and conferences deal with the mode of action of drugs in terms of biochemical and physiological processes.

*Physiological and Pharmacological Research:* The facilities of the department include modern types of research equipment. There are special facilities for research in the field of respiration; circulation; and cellular metabolism. Properly qualified students are permitted to undertake original research in physiology and pharmacology under direction of various members of the staff.

*Seminars* in special fields of physiology are offered to graduate students by various members of the staff.

## *Microbiology*

*Bacteriology, Immunology, and Mycology.* The required course is given in the fourth quarter. An intensive study is made of the common bacteria, fungi, and viruses which cause disease in man. The scope of the laboratory course is reasonably wide and acquaints the student with all the methods and procedures employed in bacteriological laboratories. Most of the lecture time is devoted to the immunological and epidemiological aspects of infection. The instruction is designed to give the students a clear conception of: (1) how organisms gain entrance to the body, (2) the type of poisons which they produce, (3) the nature of immune bodies which are produced by the host, and (4) the methods of preventing the disease by active and passive immunization.

*Research Bacteriology.* Opportunities for original investigations are afforded a few specially qualified students.

*Clinical Bacteriology.* During their clinical clerkships on medicine (one quarter each for junior and senior classes), the students may perform the routine and special bacteriological work for the patients assigned to them on the teaching service, under the direction of the



Department of Bacteriology and in parallel with the Biological Division of the medical clinic.

## *Pathology*

*General Pathology.* The course in general pathology is given during the fifth and sixth quarter of the curriculum, following completion of the prerequisite courses in anatomy, physiology, biochemistry and bacteriology. All the work of the class is done with small groups, each under the guidance of a senior instructor and his junior assistant. The histological aspects of the pathological processes are studied coincidentally with the gross anatomical and physiological alterations of the tissues, thus maintaining a unity of conception of disease. As the various pathological processes and the diseases arising from their elaboration are studied by the student groups, assignments involving reports on the study of groups of cases are made to individual students. The group work and the individual student reports are supplemented by weekly conferences involving the class as a whole and dealing with problems presented by current autopsies and with other problems of general importance. Student collaboration in post-mortem studies is required. Cases thus studied are presented by the student before the class under the direction of the staff; this takes the form of a clinical-pathological conference in which each student plays a particular role.

*Elective Courses.* Special courses in pathology are given to students who have completed the course in general pathology. These courses are available through special arrangement.

*Clinical-Pathological Conference.* A weekly clinical-pathological conference for advanced study is held on Saturdays. It is open to all persons interested, but is designed especially for the Hospital and Medical School Staff. Attendance by all the students is encouraged but is optional. Miscellaneous weekly pathological conferences dealing with current cases under treatment on the various services are held for instruction of the staffs concerned.

*Student Research.* Research facilities are provided for competent students. Those who show an interest in investigative work are given every encouragement and are allowed to work independently or in collaboration with the staff.

*Postgraduate Instruction.* The staff of the department is composed of senior nonresident and junior resident members. The junior resident staff consists of interns, assistant residents, and a resident; all of these are active teachers as well as advanced students of disease. Ample opportunity for the development of a career in the field of pathology is provided for these men.

*Medicolegal Instruction.* The department works in close cooperation with the local coroner's office. Special medicolegal investigation

for others are undertaken from time to time. The department collaborates with other departments of the Schools of Medicine and Law in a course in legal medicine that is given in alternate years.

## *Medicine*

*Introduction to Clinical Medicine and Physical Diagnosis.* This course is initiated, in the fifth quarter, by introductory lectures, case discussions, and instruction in the methods of physical examination and history taking. Early in the course students begin work at the bedside in the examination of selected patients. Emphasis throughout is placed on instruction individually or in small groups. The interpretation and pathogenesis of all abnormal findings are stressed. The Departments of Neurology and Psychiatry provide training in neurological and mental examinations. This plan of teaching continues in the sixth quarter, when, in addition, instruction in the more specialized methods of examination is provided through the co-operation of the Departments of Surgery, Obstetrics, Gynecology, and Radiology.

*Clinical Microscopy* is given in the fifth quarter. The course includes the essentials of hematology and the examination of fresh material, such as urine, stools, spinal fluids, sputum, transudates, and exudates. The most important parasites of man are studied by the use of fresh and museum material. Second-year and senior students are given opportunities for special work and for investigation. This course is supplemented in the Junior and Senior years by Hematology Conferences, which are held weekly, and Ward Rounds, which are held three times weekly.

*Cutaneous Medicine and Syphilology.* Instruction consisting of lectures, seminars and study and treatment of patients in the out-patient clinics and on the wards is offered each quarter to Junior and Senior students. In addition, an elective course consisting of advanced teaching in clinical dermatology and syphilology is offered to a limited number of students.

*Junior and Senior Medicine.* The medical students are assigned to the medical wards as clinical clerks for one half of their time, and to the medical out-patient department where they examine patients for the other half of their time.

## *Psychiatry*

Instruction starts in the first year with an introductory course in psychiatry. In the second year, methods of psychiatric examination and a general presentation of the main reaction types are given. Each third-year student has a two-week clerkship on the psychiatric ward, and in the fourth year patients are worked up in the out-patient clinic

for a period of three and half weeks. A psychiatric amphitheater clinic is held weekly throughout the year for third- and fourth-year students. Elective courses in psychiatric methods of research, physiological aspects of psychiatry, psychosomatic medicine, psychoanalysis in medicine, and principles of psychotherapy are offered to fourth-year students. Students are invited to attend the staff case conferences, the psychosomatic conferences and the conferences on psychiatric disorders of childhood. Emphasis is placed upon the close relationship of psychiatry to other branches of medicine and the social sciences. Internships are available in psychiatry with the expectation that they will lead to progressively greater interest in psychiatric problems encountered on all other services in the Hospital. Graduate training in psychiatry meeting the requirements of the American Board of Psychiatry and Neurology is given. Regular courses in conjunction with the Veterans Administration training program are available. Investigation is encouraged.

## *Surgery*

*General Surgery.* In the sixth quarter the students, during their course in physical diagnosis, attend clinics and demonstrations arranged to familiarize them with the techniques of examinations and diagnostic procedures used in general surgery and the surgical specialties. They also have the opportunity in this quarter to become familiar with certain basic principles in aseptic and atraumatic surgery and in isolation technique. The *junior* students, during their surgical quarter, attend ward rounds in surgery and the surgical specialties, act as clinical clerks on the wards and assist in the operative treatment of patients assigned to them. The surgical students in the *senior* year attend ward rounds in general surgery and the surgical specialties in the mornings and assist in the surgical out-patient clinics in the afternoon. Also in groups of two for the proportionate time available they are assigned to the emergency division of the out-patient clinic where they assist in the diagnosis and care of urgent conditions.

A six days' concentrated course of training in the administration of anesthetic agents is open to twenty-four medical students each school quarter. Properly qualified students observe and administer anesthesia under direct supervision of staff anesthetists.

*Otolaryngological Division.* An introductory course of instruction in the use of otolaryngological instruments, with a review of normal anatomy, is given to second-year students in the sixth quarter. Clinics during one quarter of alternating years are given to junior and senior students; students during their pediatric quarter work in the otolaryngological out-patient clinic as assigned. Ward rounds are held sepa-

rately each week for third- and fourth-year students. Patients are assigned to junior students during the surgical quarter.

*Ophthalmological Division.* During the sixth quarter second-year students receive instruction in elementary ophthalmology. During the senior pediatric quarter the students work in the ophthalmological out-patient clinic as assigned, and assist in the study and treatment of eye diseases. Especial emphasis is placed on the underlying medical and surgical conditions. Each student follows throughout his time in the out-patient clinic all patients assigned to him. For those who manifest an unusual interest in this specialty, provision will be made for more advanced work. Throughout the senior surgical quarter the students attend ophthalmological ward rounds for one hour each week. During either their third or fourth academic year clinics covering the more general neuro-ophthalmological and medical problems are given.

*Orthopaedic Division.* In the sixth quarter an introductory course is given. During the surgical quarters the junior and senior students attend weekly ward rounds of one hour each in orthopaedics and fractures. Students in their senior surgical quarter are assigned in rotation to the orthopaedic out-patient clinic. These students also attend orthopaedic staff rounds at 5:30 P.M. Mondays through Fridays. An elective course in the treatment of fractures, limited to three students, is offered during the junior and senior surgical quarters. An elective course in physical therapy is also offered during these quarters. Arrangements may be made for students who so desire to do research or experimental work. They may also attend the state orthopaedic clinics as held.

*Urologic Division.* In the sixth quarter, second-year students are given a course of lectures and practical demonstrations in urologic physical diagnosis in the normal individual student. Ward rounds on urologic patients are given every Saturday at 8:30 A.M. for third- and fourth-year students in their surgical quarter. Small groups are selected from the senior surgical group of students and assigned in rotation to the urologic out-patient clinic. During one quarter of the year, urologic clinics are given weekly for the junior and senior classes. These clinics deal with the affections of the male and female urinary tract and of the male genital tract. Clinics for urethroscopic and cystoscopic investigation and for the more technical methods of urologic diagnosis and treatment are held Monday, Wednesday, and Thursday from 1:30 to 5:00 P.M. and Tuesdays and Thursdays from 9:30 A.M. to 12:30 P.M. throughout the year. X-ray conferences on all urologic cases are held Tuesday, Thursday, and Saturday mornings from 8:30 to 9:30 and are followed by staff rounds. Three senior students may select one of these cystoscopic clinics, x-ray conferences, and staff rounds as an elective. *The Urologic Journal Club* meets each Monday from 4:30 to 6:30 P.M., and members of the staff review their



respectively assigned journals. Interested students are welcome.

*Neurosurgical Division.* During all four quarters, separate weekly ward rounds are held for the junior and senior surgical groups. Emphasis in these rounds is placed upon the recognition of neurosurgical problems, followed by observation of the operative and post-operative procedures. Weekly x-ray and pathological conferences are held, and these may be attended by interested individuals. Tumor clinic conferences are held bi-monthly, on each second and third Thursday of the month.

*Division of Plastic Surgery.* Weekly ward rounds are given to familiarize both third- and fourth-year students with the principles and practice of plastic and oral surgery. Ward patients are assigned to the third-year surgical students and the fourth-year surgical students work up patients in the out-patient clinic. Each Tuesday and Thursday afternoon, an opportunity is afforded interested students to observe moulage and cast work, cosmetic restoration of color, the making of prosthetic appliances, etc. This work is done under the direction of Mr. Elon H. Clark, Professor of Medical Art and Illustration.

*Division of Thoracic Surgery.* During the academic year ward rounds, lectures and demonstrations are held to acquaint the third- and fourth-year students with the principles and practice of surgery of the chest. The anatomy and physiology of the respiration and circulation are reviewed and their application to thoracic surgery is stressed. X-ray diagnosis is emphasized and frequent pathology conferences are held to give the students a well-rounded knowledge of the surgical diseases of the chest.

*Division of Anesthesiology.* Junior students, during their surgical quarter, are given a series of eleven lectures by the medical anesthesiologists. Following a brief history of anesthetic drugs, the response of the body to such drugs is discussed. The physiological basis of the reactions encountered in the operating room is stressed and the rational for choice of agents for various patients is presented. A six day's concentrated course of training in the administration of anesthetic agents is open to twenty-four senior medical students each school quarter. These students observe and administer anesthetics under the supervision of staff anesthesiologists, see page ???.

*Dentistry.* Second-year students, in the sixth quarter, are instructed in the principles of dentistry.

## *Radiology*

The student teaching schedule in roentgenology consists of a course in roentgen diagnosis and a course in therapeutic radiology. The first is offered during each scholastic quarter on Tuesday and Thursday of each week. The fundamental physics of x-ray is discussed, with the



chief emphasis being placed upon the anatomical, pathological and physiological bases for the interpretation of x-ray films. The course is conducted in seminar fashion and no formal lectures are given. The students participate in and lead discussions with the instructor serving as the moderator. An attempt is made to acquaint the student with the aids of roentgenology in diagnostic problems. The correct use of x-rays in diagnosis is stressed.

Therapeutic radiology is given one hour weekly during each quarter. At these sessions the general problem of the treatment of benign, inflammatory and malignant lesions by x-ray and radium is discussed and the accepted views of the combination of these therapeutic agents with surgery is stressed. Representative cases are demonstrated, and the follow-up results are particularly stressed.

A limited number of senior students are permitted to attend routine film reading sessions in the Department of Radiology. They are also instructed in the fundamentals of fluoroscopic examinations and shown the many pitfalls of the inexperienced fluoroscopist.

A number of conferences with the resident house staff are conducted throughout the year. Each Monday from 8:30 to 9:30 A.M. a session with the ear, nose and throat staff is held, during which the roentgen and operative findings are correlated. Each Tuesday from 11:30 A.M. to 12:30 P.M. a pediatric conference is held at which current cases are discussed and clinical and x-ray findings are given. On alternate Wednesdays from 5:00 to 6:00 P.M. conferences are held with the surgical and medical house staffs and all cases with significant x-rays are presented for general discussion. The neurosurgical staff meets with members of the x-ray department every Saturday from 10:00 to 11:00 A.M. for a discussion of all cases that have been studied by the department.

Each Thursday afternoon and Wednesday evening a conference is held by the members of the x-ray staff and visiting radiologists. Difficult cases are brought up for discussion and diagnosis.

### *Obstetrics and Gynecology*

*Second-year* students receive seventeen hours of instruction in the fundamentals of obstetrics and gynecology during their course in physical diagnosis in the sixth quarter. Clinics and demonstrations for junior and senior students are held on Saturdays at 10:30 A.M. during the Autumn, Winter, and Spring Quarters and on Mondays at 11:30 A.M. in the Summer Quarter. During one quarter of the *junior* year each group of students attends ward rounds at 8:30 A.M. on Mondays, Wednesdays, and Saturdays; preoperative conferences at 8:30 A.M. on Tuesdays and Fridays; and the out-patient clinic at 1:30 P.M. five times weekly, for nine weeks. They also attend an

endocrine clinic once a week for nine weeks during the *junior* year. The students also spend part of each day on the wards. *Senior* students, during their surgical quarter, have ward rounds on obstetrics and gynecology on Saturdays at 8:30 A.M.

*Elective* courses in the diagnosis and treatment of obstetric and gynecological conditions are offered for junior and senior students.

## *Pediatrics*

*Junior* and *senior* students, during their medical quarters, have pediatric ward rounds on Saturdays, from 8:30 to 9:30 A.M. These *junior* students receive instruction in introductory pediatrics and the physical diagnosis of infants and children. The *senior* students are divided into three groups, each of which spends one quarter in pediatrics. During this quarter they are assigned daily as clinical clerks on the children's ward, nursery, and pediatric out-patient clinic, attend ward rounds at 8:30 A.M. Mondays and Fridays and 9:30 A.M. on Wednesdays; attend the staff conference at 8:30 A.M. on Wednesdays; attend child guidance clinics each Monday at 11:00 A.M.; attend conferences on pediatric roentgenology each Tuesday at 11:30 A.M.; are instructed in the practical nursing of infants by Miss Sherwood on Fridays at 9:30 A.M.; and are taught the preparation of diets for infants and children by the Professor of Dietetics. Each student attends infant feeding clinics on Fridays during this quarter. Students may attend, on voluntary basis, the special pediatric clinics—nephritis, cardiac, allergy, and convulsive disorders. *Elective courses:* Senior students may spend two weeks in general practice with Instructors in General Practice. In addition to the six pediatric internships, there are four in which six months each are spent in obstetrics and pediatrics for graduates who plan to enter general practice. Seven assistant residencies and one residency are available.

## *Preventive Medicine and Public Health*

*Preventive Medicine and Public Health.* In the freshman year there are four lectures given to provide some basic orientation predicated upon the fact that disease has a community as well as a personal aspect and that the social component of illness is an important force in the work of the doctor as well as in the life of the community. The student is introduced to disease as a mass or community problem and to medicine as a social institution.

In the sophomore year there is a series of lectures and discussions, totaling fifty-two hours, which outline in some detail the interrelationships between medicine and society. This course attempts to provide an understanding of the general principles governing the cir-

cumstances under which disease occurs and also the general principles used in the development of measures aimed at the control of disease, both communicable and non-communicable. The effect of the physical environment on human health is briefly discussed with special emphasis on the relationship of the practicing physician to environmental control programs and policies. An overview is given of the basic health problems at the various stages of life.

In alternate years, the senior and junior students meet together for eleven one-hour sessions. These sessions are devoted to discussions of the application of the principles of preventive medicine as they can be applied by the physician in private practice. Attention is also directed to the role of community health and welfare agencies as adjuncts to the physician in the management of his individual patient. The care method of presentation and study is used, with groups of students acting as the panel of experts.

*Medical Parasitology.* This is a lecture and laboratory course given one morning a week in the fourth quarter. Most of the emphasis is placed on the symptomatology, diagnosis and therapy of the various helminthic and protozoal diseases in man; several periods are devoted to medical entomology.

### *Legal Medicine and Toxicology*

This course embraces a discussion of the relation of physicians to legal criminal procedures, jurisdiction of the coroner and medical examiner, laws governing the dead human body, personal identity of the living, and the dead, the medicolegal autopsy, traumatic injuries and fractures, rape, abortion, asphyxial death, homicidal, suicidal, and industrial poisoning, alcoholism, the examination of blood, stains, fibers, and the detection of malingering. This course is open to junior and senior students and is given in alternate years. Discussions of medicolegal problems for the house staff and senior students, and joint conferences of the medical and law students also are held.

### *Undergraduate Cancer Training Program*

(Supported by a grant in aid from the U. S. Public Health Service.)

During the senior year, the students in surgery participate in the teaching sessions held by the Undergraduate Cancer Training Program staff and the senior staff. These sessions are held five days a week, and an attempt is made to cover systematically the various regions in the body in respect to the tumors which arise in them. The viewpoints of the clinician, the radiologist, and the pathologist are presented and correlated at this time. The students themselves

prepare seminars on subjects which have a direct bearing on the problem of neoplasia in general. This portion of the program is scheduled for the second and third quarters.

In addition, the Undergraduate Cancer Training Program staff participates in the teaching of neoplasia to the sophomore students. This is done as a supplementary program to the students as they are being taught the principles of neoplastic disease by the Department of Pathology. New material is presented to them and here the clinico-pathological approach to the problem of neoplasia has special emphasis. In this phase of the program those regions of the body in which the frequency of tumors is highest are selected for study. This program is supplemented by a course for third and fourth year students in surgical pathology with emphasis upon the tumors of the individual organs. This course is given during the first quarter and requires four hours per week.

# Staff of Duke Hospital



## *Internships and Residencies*

Internships of twelve months' duration with room, board, laundry, and uniforms furnished but without salary, are available in medicine, surgery (including general surgery, urology, orthopaedics, plastic, anesthesia, thoracic- and neuro-surgery), orthopaedics, urology, otolaryngology-ophthalmology, dentistry, obstetrics and gynecology, endocrinology, pediatrics, neuropsychiatry, and pathology commencing July first.

Application blanks for all internships may be obtained by writing to the Superintendent, Duke Hospital, Durham, N. C. Graduates of any Class A medical school are eligible for internships. Duke Hospital participates in the matching plan of the National Interassociation Committee on Internships.

After the completion of an internship in Duke Hospital or in another acceptable hospital, a certain number may be appointed as assistant residents in medicine, surgery, obstetrics and gynecology, pediatrics, psychiatry, neurology, dermatology, orthopaedics, urology, otolaryngology, ophthalmology, roentgenology, anesthesiology, pathology, biochemistry, or the Student Health Service or as fellows of the Private Diagnostic Clinic, at a salary of \$250 to \$500 per year with maintenance, and eventually may be promoted to the residency in the various departments or subdepartments of the Hospital at an annual salary of \$500 to \$1,000 with maintenance. Applications should be made to the head of the department concerned.

The Hospital and School of Medicine are an integral part of the Duke University campus, and its educational, recreational, and athletic facilities are available for the Resident Staff.

The present Resident Staff of one hundred ten consists of a resident, twelve assistant residents, and nine interns in medicine; a resident and two assistant residents in dermatology and syphilology; an assistant resident in neurology; a resident, two assistant residents and three interns in psychiatry; a resident, five assistant residents, and thirteen interns in surgery (the five assistant residents are assigned in rotation to general surgery, plastic, thoracic, neuro-surgery, and pathology); a resident, two assistant residents, and one intern in otolaryngology and ophthalmology; a resident and one assistant resident in orthopaedics; a resident and one assistant resident in urology; a resi-



dent and one assistant resident in plastic surgery; a resident, four assistant residents, and three interns in obstetrics and gynecology; a resident and one intern in endocrinology; a resident, three assistant residents, and eight interns in pediatrics; three interns in obstetrics and pediatrics; two residents and four assistant residents in radiology; a resident, two assistant residents, and three interns in pathology; four assistant residents in anesthesiology, and eight in hospital administration.

### *Postgraduate Study*

Graduates in medicine are welcomed at the various clinics and demonstrations in medicine, surgery, obstetrics, and other specialties, which are held from 9:30 A.M. to 12:30 P.M. each Saturday, as well as at the daily ward-rounds in the mornings, and the out-patient clinics in the afternoons. They can start at any time and remain as long as they wish. Additional special work in any department for a period of not less than three months may be arranged by consultation with the head of the department concerned. A certain number of residencies also are available at Duke Hospital in medicine, surgery, obstetrics and gynecology, pediatrics, psychiatry, neurology, dermatology, orthopaedics, urology, otolaryngology, ophthalmology, roentgenology, pathology, and biochemistry. Further information can be obtained by writing to the Dean.

Returning veterans are requested to register on arrival at the Dean's office, and with Mr. Oscar Petty, Jr., 303 Administration, who will assist them in applying for Veteran's benefits.

# Medical Service Courses at Duke Hospital



## *Hospital Administration*

Eight internships in hospital administration leading to a certificate are available to university graduates whose character, tact, and ability for leadership are good, and whose academic standing is high. These internships are of two years' duration and pay a small salary in addition to room, board, and laundry. Vacations of two weeks are allowed during each year of internship.

The instruction is practical rather than theoretical in emphasis. The interns are rotated through seven different assistant administrative positions in the Hospital. There is also a weekly seminar lasting two hours and two classes lasting one hour each during the week.

The interns may register in the Graduate School of Duke University, and receive the A.M. degree after the successful completion of a thesis and twenty-four semester hours of university courses in various fields. This additional work will add one year to the program. Further information may be obtained by writing to the Superintendent, Duke Hospital, Durham, N. C.

## *Nursing*

*Practical Nursing Division of the Vocational Education Department of the Durham City Schools, Duke Unit:* After three months of classroom instruction at the Hillside High School, nine months are spent in classes and practical training at Duke Hospital. At the completion of this course, the student receives a certificate in practical nursing and is eligible for licensure as a practical nurse in North Carolina.

*School of Nursing:* Information may be obtained by writing to the Dean of the School of Nursing, Hanes House, Duke University, Durham, N. C.

## *Dietetics*

In addition to the dietetic training of the students of the Schools of Medicine and Nursing, fourteen dietetic interns may be admitted

to the School of Dietetics and given the certificate of graduate dietitian after the successful completion of one year's internship. The entrance requirements are a Bachelor's degree from an approved university or college, with majors in nutrition and institutional management, and the courses in chemistry, biology, social science, and education recommended by the American Dietetic Association. The course for dietetic interns provides instruction in all phases of hospital and institutional dietetics, including experience from the buying and storage of food to its service to the patients according to the physician's orders. Interns may apply some of their time in securing graduate credit.

The course starts the first of September. All students pay a registration fee of \$10 at the time of appointments. Additional fees are charged if the intern takes additional work in the University for an advanced credit. Maintenance is provided. More detailed information and application blanks may be obtained from the Professor of Dietetics, Duke University School of Dietetics, Durham, N. C.

### *Social Service*

Medical and psychiatric social casework service is offered to patients referred by personnel within the Hospital, and by interested individuals and health and welfare agencies outside of the Hospital. Assistance and advice in connection with the problems presented are available to the members of the Staff and referring agencies.

The division also assists in teaching social and environmental aspects of illness and medical care through consultations and lectures to the students of the Schools of Medicine and Nursing. In addition, it serves as an agency for supervised field work for students of the Graduate School of Social Work of the University of North Carolina. Further information concerning training for advanced students may be obtained from the Social Service Division, Duke Hospital, Durham, North Carolina.

### *Anesthesiology*

A two- to three-year residency training program in Anesthesiology is available for physicians who are graduates of a Class A medical school and who have completed an internship in an accredited hospital. This is an approved residency which after two years qualifies the resident to take the American Board examinations. Applicants are accepted January 1st and July 1st. Opportunities are provided to employ all the varied techniques and agents utilized in anesthesia. Emphasis is placed on knowledge of the various diagnostic and therapeutic nerve blocks, and opportunity is provided to learn the standard regional nerve block procedures. Facilities are available for clinical

and experimental research. Seminars are held twice a week for theoretical instruction and review of interesting cases and journals.

Courses available to graduate nurses include an eighteen months' course for nurses who have had no experience in anesthesia, and a nine to twelve months' course for nurses who have had five years of practical experience but no formal training in the specialty. Instruction embraces the theoretical aspects and clinical application of all drugs and techniques in accepted usage. The program is divided into quarters. The major part of the basic theoretical instruction is given during the first three quarters. After a pre-clinical period of eight weeks, clinical practice runs parallel with the theoretical program. One class is accepted annually and enrolled on January 15. All appointments for the current year are made by September 1 of the preceding year. Graduates of these courses are eligible to take the examination given by the American Association of Nurse Anesthetists. Tuition is \$150.00 and \$100.00 respectively. Additional information concerning these programs for nurses may be obtained from Mary B. Campbell, R.N., Box 3094, Duke Hospital, Durham, North Carolina.

### *Laboratory Technique*

The course in laboratory technique, which includes training in blood chemistry, clinical microscopy, bacteriology, serology, basal metabolism, etc., is approved by the Registry of Technicians of the American Society of Clinical Pathology. The course lasts twenty-one months, the next class starting September, 1952. The registration fee is \$300 which includes tuition, student health and diploma fee for the entire course. There are no additional fees except for breakage. Other student activity fees are optional. The students live in town at their own expense. A minimum of two years of approved college work is required. The degree of B.S. in Medical Technology is awarded upon successful completion of the course. Information as to the specific requirements may be obtained from Dr. Haywood M. Taylor, Duke Hospital, Durham, N. C.

### *X-Ray Technology*

The course in x-ray technology includes training in radiographic technique. The curriculum has been planned with the thought of giving the student x-ray technician a basic knowledge of the principles involved along with an introduction to the technical aspects of roentgenography. Applicants for training in x-ray technology should satisfy one of the following requirements: two years of approved college work, graduate nurse, or special student without either of these requirements who might be appointed by the committee. The course is of twelve

months' duration and the following subjects are presented: processing x-ray films, dark room technique, elementary anatomy and physiology, general physics, radiographic technique, and radiation physics. Students are admitted on March 1 and October 1 each year. The tuition fee is \$25.00. No maintenance is provided, therefore it is necessary that the students live in town at their own expense. At the end of six months, if the student's work has been unsatisfactory, the student is advised to withdraw from the course. The department reserves the right to dismiss a student at any time. A passing grade of 75 per cent must be maintained in each subject. A certificate is awarded to those who have successfully completed the course. The course is approved by the Council on Medical Education, American Medical Association, American College of Radiology and the American Society of X-ray Technicians. Information as to specific requirements may be obtained from the Professor of Radiology, Duke Hospital, Durham, N. C.

### *Physical and Occupational Therapy Rehabilitation*

A fifteen months' course in physical therapy is offered for men and women graduates of accredited schools of physical education and nursing, and for selected applicants who have completed ninety college semester hours, including credit in the biological sciences, physics, chemistry and psychology. The curriculum provides instruction in anatomy, physiology, kinesiology, pathology, psychology, electrotherapy, neuropsychiatry, therapeutic exercise and the principles of rehabilitation. Instruction in the clinical subjects is given by members of the faculty of the School of Medicine. Clinical training will be given at Duke Hospital and affiliated institutions and includes supervision of orthopaedic problems in the Durham Public Schools. The course starts in October. The tuition fee is \$350 plus \$35 for medical fee, and does not include maintenance. A certificate is awarded upon successful completion of the course. Twenty hours of credit may be earned toward the baccalaureate degree.

In addition to the above, a six months' course in the Psychosomatic Aspects of Physical Therapy is given to registered graduate physical therapists. The course includes a study of personality structure, adjustment, tensions, anxiety and their relation to patient behavior and management. The tuition fee is \$150.00. A certificate is awarded. Courses are given to the students of the Schools of Medicine and Nursing. Further information and application blanks may be obtained from the Division of Physical Therapy, Duke Hospital, Durham, N. C.

Occupational Therapy in the form of creative, manual, educational and recreational activities is offered to patients upon referral by their physicians. These activities are adapted to the specific



remedial need of the individual patient. The division serves as a clinical training center for students from Occupational Therapy schools.

### *Medical Record Library*

A twelve months' course for the training of medical record librarians which has been given full approval of the American Association of Medical Record Librarians and the American Medical Association, includes three months of classes and nine months of internship with rotation through inter- and extra-departmental stations. Applicants are judged individually for eligibility, and education, training, and experience are all taken into consideration. The curriculum provides instruction in the theory of medical record library science, and an introduction to anatomy, physiology, pathology, medical and operative terminology, and medical diction. Instruction is given by members of the faculty of the School of Medicine, with special lectures on hospital management and correlation of various hospital departments, as well as seminars on legal aspects and administrative uses of medical case records. Internship includes application of class work in actual practice and covers all phases of medical record library work. The course starts in October. The tuition fee is \$175.00 and does not include maintenance. A certificate is awarded upon successful completion of the course. Applications may be made to the Medical Record Librarian, Box 3307, Duke Hospital, Durham, N. C.

### *Medical Art and Illustration*

The function of this Division is to produce, for staff members allied to medicine, visual aids by way of various art and photographic methods. These visual aids are used to enhance the medical records and to aid in research and education. Services offered by this Division are: 1. Medical Art: Illustrations, by means of various artistic techniques, depicting anything perceptible to the eye, the existing but unseen and even the theoretical, as well as mechanical drawings, diagrams, charts, graphs, lettering, casts, models, exhibits, etc. 2. Medical Photography: Illustrations of anything to which available photographic equipment will respond. This Division produces still and motion pictures, microphotographs, pictures of the retinæ, photographic copies, film strips, lantern slides, enlargements and contact prints. Services offered directly for the patients' benefit are: Production of various types of anatomical prostheses and instruction in the use of opaque cosmetics. Facilities for individual training in specific techniques or methods employed by this Division are available. No academic credit is given. Prerequisites, tuition, time and type of training are determined by the Chairman of this Division. No regular courses of instruction in medical art and photography or their allied fields are offered.



# THE SCHOOL OF NURSING

Fall Semester begins September 17, 1953

Spring Semester begins February 2, 1954

# The School of Nursing



## *General Information*

The School of Nursing of Duke University was established in 1931 in association with the School of Medicine of the University and Duke Hospital through the gift of the late James B. Duke. The administrator of the School of Nursing is a member of the Committee on Health Affairs which promotes the common interests of the Medical School, School of Nursing, and Duke Hospital.

The central aim of the educational program is to select young women with aptitudes, interests and personal characteristics needed in nursing, and to provide an educational program enabling them to develop skills, knowledge and attitudes needed for professional nursing service in the community and for maximum personal development.

This program is designed to prepare nurses for:

1. General duty in hospitals.
2. Private duty in hospitals and homes.
3. First level positions under supervision in public health nursing agencies.

## *Facilities for Instruction*

The facilities for instruction include the facilities for instruction available in the undergraduate, professional and graduate schools and colleges of Duke University and the clinical facilities of Duke Hospital, of the North Carolina Cerebral Palsy Hospital, and of the Durham Veterans Hospital.

## *Clinical Facilities*

Duke Hospital has every modern convenience for the diagnosis, proper nursing care, welfare and comfort of the patients including 591 hospital beds, 50 bassinets, a large public out-patient department, a large private diagnostic clinic and offices and examining rooms for the doctors who serve on the staff of the hospital. There are very close relationships established between the hospital and the Health Departments in North Carolina. A system for referral of patients to the nursing service of the Health Departments has been established

between the supervisors of the nursing service in the hospital and the nursing service of the Health Department.

### *Libraries*

The reference library of 2,298 books and periodicals of special interest to students majoring in nursing is located in Hanes House. Students may use the general libraries on the East and West Campuses and the Duke Hospital Library. A collection of visual aids including films is being assembled with an index in the library for the use of students and instructors in the School of Nursing.

### *Classrooms and Laboratories*

In the wing of Hanes House where the administrative offices of the School of Nursing are located are a large classroom seating 100 people and equipped with audio-visual aides, a small classroom with seating capacity of 50 also equipped with screen and movie projector, a nursing arts laboratory with equipment for nursing practice for sixteen students, and a conference room for faculty committees small discussion groups and student council meetings. The School of Nursing uses the laboratories of the Medical School for courses in science and classrooms in the hospital for clinical nursing courses.



# Admission



## *Application for Admission*

Applications for admission to the School of Nursing should be made to the Committee on Admissions of the School of Nursing, Hanes House, Duke University, Durham, N. C. Application forms will be sent on request.

## *Admission*

Applicants may qualify for admission as members of the Freshman Class, as students with advanced standing, or as members of the first year of the diploma program. Since the profession of nursing requires women with a high sense of integrity and responsibility, with culture and intelligence whose predominant interest is service, the Admissions Committee will select the applicants who, in its opinion, seem best qualified for nursing. The Admissions Committee must have on file the records indicating the fulfillment of the following requirements before considering an applicant.

1. Graduation from high school with sixteen units of credit as indicated.
2. Aptitude and achievement tests.
3. Three recommendations.
4. Interviews.
5. Physical and dental examination.
6. Transcript of college courses for those who have attended college.

## *Specific Requirements*

I. An applicant for admission to the School of Nursing must present at least sixteen acceptable units of secondary school credit. A unit of credit is allowed for a course of study pursued throughout an academic year at an accredited secondary school, if the course has been completed satisfactorily.

1. Twelve units must be in English, foreign language, history\* and

\* Applicants who do not present two acceptable units of history must take history in college.

social studies, mathematics, and natural science; and must include:

- (a) English—3 units.
- (b) Algebra—1 unit.
- (c) Plane geometry—1 unit.

2. Four units may be in the five subjects listed above or from those in the following table. The units indicate the maximum amount of credit acceptable in each subject:

<i>Subject</i>	<i>Units</i>	<i>Subject</i>	<i>Units</i>
Agriculture .....	2	Mechanical Drawing .....	2
Art .....	1	Music .....	1
Commercial Subjects .....	3	Physical Geography.....	1
Household Economics .....	2	Woodworking, Machine Work .....	2

Other units offered in subjects not included in this list will be considered for acceptance on the basis of full statements transmitted with the applicant's record from the school recommending her.

II. Satisfactory scores on a battery of aptitude and achievement tests.

III. Three recommendations, two of which must come from recent high school or college instructors.

IV. Interviews with two members of the Duke University School of Nursing faculty, whenever possible.

V. Records of recent physical and dental examination.

A physical examination at Duke Hospital is required for final acceptance into the School of Nursing. This examination includes a chest x-ray and a tuberculin test.

**ADMISSION TO ADVANCED STANDING IN THE SCHOOL OF NURSING:** An applicant for advanced standing must have fulfilled the equivalent of the requirements for admission to the Freshman Class. must present official certificates of all work completed in other institutions, and must have an honorable dismissal from each institution previously attended. Credit for work completed will be determined in relation to the curriculum requirements of the School of Nursing.

Applicants for advanced standing in the School of Nursing should present, as far as possible, subjects corresponding to those required by the School. They may not, during their first semester, register for more than the minimum number of hours required of the class which they enter, except by permission of the Dean of the School of Nursing.

Transfer credits are tentatively evaluated pending the completion of two semesters of work in residence. To validate provisional credits the student must earn at least an average of C in a normal load of work. Transfer grades of C or above are rated at one quality point

per credit hour when validated. Credits with grades of D are not acceptable.

The maximum amount of credit acceptable from a junior college is 60 semester hours, exclusive of physical education. No credit is given for work completed by correspondence, and credit for no more than six semester hours is allowed for extension courses. Any extension work accepted must be specifically approved by the dean of the college to which the student seeks admission.

# Financial Information and Living Accommodations



Fees paid by students and services of the students to the hospital cover only a part of the cost of their instruction and maintenance and the operation of the University. Income from endowment and contributions from alumni, alumnae, and other public-spirited men and women meet the balance, which constitutes more than half the total cost.

## *Fees and Estimated Expenses—Diploma Program*

A registration fee of \$25.00 is required at the time of acceptance into the school. This advanced fee is applied toward the payment of tuition for the first year. One-half of the tuition fee of \$100.00 is payable at the beginning of each semester. An activities fee of \$15.00 is charged each year. Students pay for their uniforms and are responsible for payments for replacements.

	<i>First Year</i>	<i>Second Year</i>	<i>Third Year</i>
Tuition .....	\$100.00	\$100.00	\$100.00
Pre-entrance tests .....	5.00		
Books .....	40.00	10.00	10.00
Activities .....	15.00	15.00	15.00
Room Key Deposit .....	1.00		
Uniforms .....	84.20		
Graduation Fees .....			9.25
	<u>\$245.20</u>	<u>\$125.00</u>	<u>\$134.25</u>

The fee for pre-entrance tests and health examination is payable at time testing is done. Checks should be made payable to Duke University.

No student is permitted to attend classes until she has complied with all regulations concerning registration and payment of bills for the term.

Arrangements for purchase of uniforms are made with the uniform company late in September. At that time, \$75.00 of the cost of the uniforms is paid.

Duke Hospital provides board, room and laundry for students in the School of Nursing in return for their services in the hospital. The rooms in the residence are fully equipped.

Refunds of tuition and other fees are made to students who with-

draw within 14 days after the beginning of the semester. On and after the fifteenth day all fees are considered as earned and no refunds are made.

Students are entitled to one transcript free of charge. Additional copies are supplied at \$1.00 each. Records are not released when the Treasurer's office reports an unpaid account.

### *Fees and Estimated Expenses—Degree Program*

A registration fee of \$20.00 is required of all new students. This fee is payable only once; it is not refundable. A room deposit of \$25.00 is also required of all new students. The general fee is in lieu of special fees usually charged for matriculation, use of laboratories, student health service, commencement. One-half of the tuition and general fees are payable at the beginning of each semester.

	<i>First Year</i>	<i>Second Year</i>	<i>Third Year</i>	<i>Fourth Year</i>
Tuition—University .....	\$ 350.00	\$350.00		
Tuition—School of Nursing.....		100.00	\$100.00	\$100.00
General Fee .....	150.00	150.00		
Room Rent .....	171.00			
Board .....	567.50			
Laundry .....	30.00			
Pre-entrance tests .....	5.00			
Books .....	40.00	40.00	40.00	10.00
Activities .....		15.00	15.00	15.00
Uniforms .....		84.20		
Graduation Fees .....				14.25
	<u>\$1,313.50</u>	<u>\$739.20</u>	<u>\$155.00</u>	<u>\$139.25</u>

The fee for pre-entrance tests and health examination is payable at time testing is done. Checks should be made payable to Duke University.

No student is permitted to attend classes until she has complied with all regulations concerning registration and payment of bills for the term.

Arrangements for purchase of uniforms are made with the uniform company late in September. At that time, \$75.00 of the cost of the uniforms is paid.

A fee for public health nursing will be added in the senior year when arrangements for the experience are completed.

After the first year the Duke Hospital provides board, room and laundry for students in the degree program of the School of Nursing in return for their services in the hospital. The rooms in the residence are fully equipped.

Students may have their bills sent to parents or guardians provided the Treasurer has been notified in writing with sufficient antecedence.



Failure of a student or of a parent or guardian to pay bills on the dates scheduled will debar the student from class attendance until her account is settled in full; subsequent withdrawal does not entitle her to a refund. No student is considered by the Faculty as a candidate for graduation until she has settled with the Treasurer for all her indebtedness to the University. A student who has not settled all her bills with the Treasurer is not allowed to stand the final examinations of the academic year.

Refunds of tuition and other fees are made to students who withdraw within 14 days after the beginning of the semester. On and after the fifteenth day all fees are considered as earned and no refunds are made.

Due to rising costs a readjustment in charges, including room-rents, is being considered. In the event of an adjustment applicants will be notified.

Students are entitled to one transcript free of charge. Additional copies are supplied at \$1.00 each. Records are not released when the Treasurer's Office reports an unpaid account.

### *Loan Fund*

Through the generosity of the Kellogg Foundation, loan funds sufficient to cover tuition costs are available to students who demonstrate a real need and who are qualified. There are also a limited number of tuition scholarships for exceptionally qualified students.

# General Regulations



## *Residence*

Students are housed in a fireproof residence located near the hospital. Rooms are adequately equipped with blankets and linen, making further provision by the student unnecessary. Life in the dormitory is under the regulations established by the Student Government Association with advice from the faculty. The dormitory, Hanes House, is new and planned for comfortable living.

## *Health Regulations*

The School has general supervision of the student's health. All physical defects, such as defective vision, dental needs, etc., must be corrected before admission to the School. The student must have been immunized against typhoid fever and vaccinated against smallpox during the current year. All students are required to pass a physical examination before admission to the School of Nursing and at intervals thereafter, a final examination being given at the end of the course. Students whose condition needs further observation may be admitted tentatively, but must cancel their application if later findings prove them physically unfit for nursing.

Students are allowed three weeks' sick leave during the three years of clinical practice.

## *Health Program*

With the exceptions noted below, full medical and surgical care is furnished to all regularly matriculated student nurses. It includes hospitalization in the Student Nurses Infirmary or in a private nursing unit according to the preference of the student or the seriousness of the illness. Medical and Surgical care, drugs, dressings, x-ray, laboratory, and staff but not private nursing is furnished without charge. Refraction of eyes, treatment of teeth and of all chronic and pre-existing conditions, such as diseased tonsils, hernias, pilonidal cysts and other elective surgery, chronic skin conditions, endocrine disturbances, etc., and accidents or illnesses occurring during vacations or while off the campus, are not included in this service. The cost of any necessary braces and orthopaedic appliances, as well as of special nursing, must

be borne by the student and blood used for transfusions must be paid for or replaced. If the student has insurance providing hospital, medical or surgical benefits, the benefits shall be applied to the cost of her medical care.

Advisory consultation with a Psychiatrist is available through the Dean of Nursing at no expense to the student but office visits for psychotherapeutic interviews cannot be included in this service.

First year students in the four year degree program are not furnished maintenance by the hospital and will be asked to pay for board while hospitalized. Insurance benefits, if any, will be used to cover this.

A nurses health office is maintained in the student nurses' dormitory for the purpose of treating ambulatory cases. Admissions to the hospital are arranged through this office.

Swimming, basketball and softball are offered as student activities, in addition to social activities. First-year students are required to elect either swimming or basketball.

### *Readmission*

Students who are absent for more than one month on account of illness or have leave of absence may be readmitted to the same or a succeeding class at the discretion of the faculty.

### *Leave of Absence*

Students are not expected to leave the School because of family or other personal reasons. Absence from the School is granted only in extreme cases. If a student is obliged to be away for a period exceeding four weeks, the Dean of the School of Nursing will determine the date of her return and the question of resuming her place in her original class.

### *Dismissal*

The faculty of the School of Nursing may, at any time, place a student on probation or release her from the School if, in its opinion, she does not have the qualifications necessary for the profession.

# Requirements for Degrees in Nursing



## *Programs of the School of Nursing*

The School of Nursing offers two programs for students wishing to prepare for the profession of nursing. The diploma program covers a period of three calendar years with one month of vacation each year. At the completion of this program, the student receives the diploma in nursing and is then eligible for the examinations given by the North Carolina State Board of Nurse Examiners.

The program leading to the degree of B.S. in nursing covers a period of four calendar years. At the completion of this program, the student receives the degree of B.S. in Nursing and is then eligible for the examinations given by the North Carolina State Board of Nurse Examiners. The School is fully approved by the North Carolina Joint Committee on Standardization.

### *Program I Leading to a Diploma in Nursing*

#### SUMMER SESSION (12 WEEKS)

<i>First Term</i>	S.H.	<i>Second Term</i>	S.H.
Chemistry .....	3	Zoology .....	3
N1 Orientation to the Health Field..	2	N2 Introduction to Nursing.....	1
	<u>5</u>		<u>4</u>

#### FIRST YEAR

<i>First Semester</i>	S.H.	<i>Second Semester</i>	S.H.
Anatomy & Physiology.....	3	Anatomy & Physiology.....	3
Physiological Chemistry .....	3	N92 Medical & Surgical Nursing...	6
Nutrition .....	3	Microbiology .....	3
N61 Nursing Arts .....	4	N62 Nursing Arts .....	2
Social Psychology .....	2	Social Psychology .....	2
	<u>15</u>		<u>16</u>

#### SUMMER SESSION (12 WEEKS)

	S.H.
N94 Medical & Surgical Nursing.....	3

#### \*SECOND YEAR

<i>First Semester</i>	S.H.	<i>Second Semester</i>	S.H.
N140 Medical & Surgical Nursing including O. R. & Diet Therapy .....	4	N130 Obstetric Nursing .....	4
Child Development .....	3		<u>4</u>
	<u>7</u>		

\* Class divided into three sections and rotated on these three services.

SUMMER SESSION (12 WEEKS)

		S.H.	
N120 Pediatric & Communicable Disease Nursing.....		4	
*THIRD YEAR			
<i>First Semester</i>	S.H.	<i>Second Semester</i>	S.H.
N170 Psychiatric Nursing .....	<u>4</u>	N190 Advanced Medical & Surgical Nursing with Seminar on Nursing Problems .....	2
	4	N160 Social Foundations of Nursing Education .....	<u>3</u>
			5

## *Description of Courses—Diploma Program*

### BIOLOGICAL AND PHYSICAL SCIENCE

ANATOMY AND PHYSIOLOGY.—6 s.h.

DR. MARKEE, DR. EVERETT, DR. DUKE, MRS. HORNE

CHEMISTRY.—3 s.h.

DR. TAYLOR

PHYSIOLOGICAL CHEMISTRY.—3 s.h.

DR. TAYLOR

MICROBIOLOGY.—3 s.h.

DR. POPE

### SOCIAL SCIENCE

N2. INTRODUCTION TO NURSING.—1 s.h.

ASSISTANT PROFESSOR INGLES

SOCIAL PSYCHOLOGY.—4 s.h.

ASSISTANT PROFESSOR JOHNSTON

CHILD DEVELOPMENT.—3 s.h.

DR. REICHENBERG-HACKETT

N160 SOCIAL FOUNDATIONS OF NURSING EDUCATION.—3 s.h.

PROFESSOR WILSON

### NURSING AND ALLIED ARTS

1. ORIENTATION TO THE HEALTH FIELD.—2 s.h.

ASSISTANT PROFESSOR MASSEY

61-62. NURSING ARTS.—6 s.h.

MRS. BROCK, MISS KNOWLES, MRS. BUTLER, MISS ROSENBAUM

NORMAL NUTRITION AND DIETETICS.—3 s.h.

MISS BARNARD

92. MEDICAL AND SURGICAL NURSING.—6 s.h.

ASSISTANT PROFESSOR INGLES, ASSISTANT PROFESSOR RAPPAPORT,  
MISS CONRAD, MISS GARMON, MISS YEARICK, MEDICAL STAFF

94. MEDICAL AND SURGICAL NURSING.—3 s.h.

120. PEDIATRIC AND COMMUNICABLE DISEASE NURSING.—4 s.h.

MISS HAHOLA

130. OBSTETRIC NURSING.—4 s.h.

MISS J. WILSON, MISS KIERNAN

140. MEDICAL AND SURGICAL NURSING.—4 s.h.

ASSISTANT PROFESSOR INGLES, ASSISTANT PROFESSOR RAPPAPORT,  
ASSISTANT PROFESSOR MASSEY, MISS CONRAD, MISS CAMPBELL,  
MISS GARMON, MISS YEARICK

170. PSYCHIATRIC NURSING.—4 s.h.

ASSISTANT PROFESSOR ZUKOWSKI

190. ADVANCED MEDICAL AND SURGICAL NURSING.—2 s.h.

ASSISTANT PROFESSOR INGLES

\* Class divided into two sections and rotated on these two services.



## *Program II Leading to a B.S. in Nursing and a Diploma in Nursing*

### FIRST YEAR

<i>First Semester</i>		S.H.	<i>Second Semester</i>		S.H.
Eng 1	Freshman Composition . . . .	3	Eng 2	Freshman Composition . . . .	3
*Hist 1	Historical Background of the World Today . . . . .	3	*Hist 2	Historical Background of the World Today . . . . .	3
*Relig 1	The English Bible . . . . .	3	*Relig 2	The English Bible . . . . .	3
N 1	Orientation to the Health Field . . . . .	2	N 2	Introduction to Nursing . . .	1
Zool 1	General Zoology . . . . .	4	Zool 2	General Zoology . . . . .	4
	Physical Education . . . . .			Physical Education . . . . .	
		15			17

### SUMMER SESSION (6 WEEKS)

#### *First Term*

	S.H.
Chemistry . . . . .	3
Ed 88 Educational Psychology . . . . .	3
	6

### SECOND YEAR

<i>First Semester</i>		S.H.	<i>Second Semester</i>		S.H.
	Anatomy & Physiology . . . . .	3		Anatomy & Physiology . . . . .	3
	Physiological Chemistry . . . . .	3	N 92	Medical & Surgical Nursing..	6
	Nutrition . . . . .	3	Ed 118	Educational Psychology— Developmental . . . . .	3
N 61	Nursing Arts . . . . .	4	N 62	Nursing Arts . . . . .	2
Soc 91	General Sociology . . . . .	3	Soc 92	General Sociology . . . . .	3
	Physical Education . . . . .			Physical Education . . . . .	
		16			17

### SUMMER SESSION (16 WEEKS)

#### *First Term (6 weeks)*

	S.H.
*Eng S55 Representative English Writers . . . . .	3
*Phil S94 History of Modern Philosophy . . . . .	3
*Phil S99 Introduction to Christian Ethics . . . . .	3
N 93	Medical & Surgical Nursing (cont. through summer) . . . . .
	6

#### *Second Term (10 weeks)*

	S.H.
N 95	Introduction to the Field of Social Work . . .
	3

### THIRD YEAR

<i>First Semester</i>		S.H.	<i>Second Semester</i>		S.H.
N 120	Pediatric & Communi- cable Disease Nursing..	6	N 130	Obstetric Nursing . . . . .	6
†Soc	Family Relationships . . . .	3	†Psych 116	Psychology of Adjustment . . . . .	3
		9			9

\* Choice.

† One-half of class each semester.

SUMMER SESSION (16 WEEKS)

	S.H.
N180 Public Health Nursing.....	3
N140 Medical & Surgical Nursing including O. R. & Diet Therapy.....	6
	<hr/> 9

FOURTH YEAR

First Semester	S.H.	Second Semester	S.H.
Elective above 100 level.....	3	N 181 Public Health Nursing cont. with Field Experience	3
N 160 Social Foundations of Nursing Education .....	3		
N 170 Psychiatric Nursing .....	6		
	<hr/> 9		<hr/> 3

SUMMER SESSION (16 WEEKS)

	S.H.
N190 Advanced Medical & Surgical Nursing with Seminar on Nursing Problems.....	3

In the junior year the class is divided into three sections and rotated in the three major nursing courses.

In the senior year one half of the class are registered in Public Health Nursing each semester; the other half is divided between Psychiatry and Advanced Medical and Surgical Nursing. In the Summer Session the students are registered in Medical and Surgical Nursing (N 190) and Psychiatric Nursing (N 170).

## *Description of Courses—Degree Program*

### EDUCATION

88. EDUCATIONAL PSYCHOLOGY: LEARNING AND MEASUREMENT.—  
3 s.h. ASSOCIATE PROFESSORS EASLEY AND RUDISILL;  
AND ASSISTANT PROFESSOR PETTY

18. EDUCATIONAL PSYCHOLOGY: PSYCHOLOGICAL DEVELOPMENT.—  
Prerequisite: three semester hours in psychology or educational psychology. 3 s.h.  
ASSOCIATE PROFESSOR EASLEY AND DR. ADAMS

### ENGLISH

1-2. ENGLISH COMPOSITION.—6 s.h.

ASSOCIATE PROFESSORS BEVINGTON, BOWMAN, MITCHELL, AND PATTON; ASSISTANT  
PROFESSORS BEVINGTON, BUDD, HARWELL, JORDAN, POTEAT, SUGDEN, WHITE,  
AND WILLIAMS; DRs. CHURCH, FRASER, REICHARD, AND SMITH;  
MESSRS. BOWERS, JOHNSON, LANE, LARKIN, AND SMITH

S55. REPRESENTATIVE WRITERS.—3 s.h.

MR. SANDERS

### HISTORY

E1-2. THE UNITED STATES IN THE WORLD TODAY.—6 s.h.

PROFESSOR HAMILTON; ASSOCIATE PROFESSORS FERGUSON, PARKER, AND ROPP;  
ASSISTANT PROFESSORS ACOMB AND COLTON; DR. DURDEN

51, 52. HISTORICAL BACKGROUND OF THE WORLD TODAY.—6 s.h.

PROFESSOR CURTISS; ASSOCIATE PROFESSOR ROPP; ASSISTANT  
PROFESSORS ACOMB AND COLTON; DR. DURDEN; MR. OLIVER

### PSYCHOLOGY

116. PSYCHOLOGY OF ADJUSTMENT.—3 s.h.

ASSISTANT PROFESSOR REICHENBERG-HACKETT

## RELIGION

## 1. THE ENGLISH BIBLE.—3 s.h.

PROFESSOR CRUM; ASSISTANT PROFESSORS BRADLEY AND PRICE;  
DRS. PERRY AND SALES; MR. DANIELS

## 2. THE ENGLISH BIBLE.—3 s.h.

PROFESSOR CRUM; ASSISTANT PROFESSORS BRADLEY, PRICE AND WETHINGTON;  
DRS. PERRY AND SALES; MR. DANIELS

## SOCIOLOGY

## 91-92. GENERAL SOCIOLOGY.—6 s.h.

PROFESSOR JENSEN; ASSOCIATE PROFESSOR SCHETTLER; ASSISTANT  
PROFESSORS ROY AND WHITRIDGE; MR. McNURLEN

## ZOOLOGY

## 1. ANIMAL BIOLOGY.—4 s.h.

ASSOCIATE PROFESSORS HUNTER AND ROBERTS AND STAFF

## 2. GENERAL ZOOLOGY.—Prerequisite: Zoology 1. 4 s.h.

ASSOCIATE PROFESSORS BOOKHOUT AND  
HUNTER AND STAFF

## BIOLOGICAL AND PHYSICAL SCIENCE

## ANATOMY AND PHYSIOLOGY.—6 s.h.

DR. MARKEE, DR. EVERETT, DR. DUKE, MRS. HORNE

## CHEMISTRY.—3 s.h.

DR. TAYLOR

## PHYSIOLOGICAL CHEMISTRY.—3 s.h.

DR. TAYLOR

## MICROBIOLOGY.—3 s.h.

DR. POPE

## SOCIAL SCIENCE

## N2. INTRODUCTION TO NURSING.—1 s.h.

ASSISTANT PROFESSOR INGLES

## N160. SOCIAL FOUNDATIONS OF NURSING EDUCATION.—3 s.h.

PROFESSOR WILSON

## NURSING AND ALLIED ARTS

## 1. ORIENTATION TO THE HEALTH FIELD.—2 s.h.

ASSISTANT PROFESSOR MASSEY

## 61-62. NURSING ARTS.—6 s.h.

MRS. BROCK, MISS KNOWLES, MRS. BUTLER, MISS ROSENBAUM

## 81. NORMAL NUTRITION AND DIETETICS.—3 s.h.

MISS BARNARD

## 92. MEDICAL AND SURGICAL NURSING.—6 s.h.

ASSISTANT PROFESSOR INGLES, ASSISTANT PROFESSOR RAPPAPORT,  
ASSISTANT PROFESSOR MASSEY, MISS CONRAD, MISS GARMON,  
MISS YEARICK, MEDICAL STAFF

## 94. MEDICAL AND SURGICAL NURSING.—3 s.h.

## 95. INTRODUCTION TO THE FIELD OF SOCIAL WORK.—3 s.h.

MISS WIEN

## 120. PEDIATRIC AND COMMUNICABLE DISEASE NURSING.—6 s.h.

ASSISTANT PROFESSOR MASSFY, MISS HAHOLA

## 130. OBSTETRIC NURSING.—6 s.h.

ASSISTANT PROFESSOR MASSEY, MISS J. WILSON, MISS KIERNAN

140. MEDICAL AND SURGICAL NURSING.—6 s.h.  
ASSISTANT PROFESSOR INGLES, ASSISTANT PROFESSOR RAPPAPORT,  
ASSISTANT PROFESSOR MASSEY, MISS CONRAD, MISS CAMPBELL,  
MISS GARMON, MISS YEARICK
170. PSYCHIATRIC NURSING.—6 s.h. ASSISTANT PROFESSOR ZUKOWSKI
180. PUBLIC HEALTH NURSING.—3 s.h. ASSISTANT PROFESSOR MASSEY
181. PUBLIC HEALTH NURSING FIELD EXPERIENCE.—3 s.h.  
ASSISTANT PROFESSOR MASSEY
190. ADVANCED MEDICAL AND SURGICAL NURSING.—3 s.h.  
ASSISTANT PROFESSOR INGLES, ASSISTANT PROFESSOR MASSEY

# Combined Academic-Professional Programs in Nursing



**S**TUDENTS who have been graduated from the Duke University School of Nursing with an average grade of "C" or better may, upon recommendation by the Dean of the School of Nursing, apply for admission to the Woman's College of Duke University. If accepted she may obtain the degree of Bachelor of Arts or Bachelor of Science from Duke University by fulfilling the requirements for the degree of choice. Forty semester hours of credit toward these degrees are given for the three-year nursing program or toward the degree of Bachelor of Science in Nursing Education for those showing ability in teaching.

The program of studies leading to the degree of Bachelor of Arts is as follows:

## 1. Minimum requirement of the Undergraduate College of Arts and Science:

	S.H.
English 1-2 .....	6
Natural Science .....	8
Language (completion of the third college year) .....	6-18
Religion .....	6
History, Economics or Political Science .....	6
	<hr/>
	32-44

- |   |       |
|---|-------|
| 2. Basic nursing program .....  | 40    |
| 3. At least twelve semester hours in one department other than nursing in courses not primarily open to freshmen..... | 12    |
| 4. Electives .....  | 24-36 |

In addition to twelve semester hours in one department, the program must include 24 semester hours in courses numbered 100 or above.

A total of 124 semester hours' credit and 124 quality points is required for graduation.

Students who have been graduated from the Duke University School of Nursing may obtain the degree of Bachelor of Science by fulfilling all requirements for that degree. Forty semester hours of credit toward this degree are given for the three-year program in the School of Nursing. The requirements for this degree may be found in the bulletin of the undergraduate colleges.



## *Admission with Advanced Standing in the Woman's College*

Students from the School of Nursing who are admitted to the Woman's College may receive credit for college courses taken prior to their admission to the School of Nursing provided they meet the requirements listed below.

A student enrolling for the Bachelor's degree, who transfers from a junior college or from a four-year college not affiliated with the Southern Association or a similar regional association, is under all circumstances required to continue, for at least one semester in the Woman's College the foreign language she presents for minimum graduation requirements. Note: No foreign language is required for the B.S. in Nursing Education.

Credit for courses in science offered for advanced standing by a student transferring from a junior college or from a four-year college not affiliated with the Southern Association or a similar regional association will be determined by the departments concerned.

Transfer credits are tentatively evaluated pending the completion of two semesters' work in residence. To validate provisional credits the student must earn at least an average of "C" in a normal load of work. Transfer grades of "C" or above are rated at one quality point per credit hour when validated. Credits with grades of D are not acceptable.

The maximum amount of credit acceptable from a junior college is sixty semester hours, exclusive of physical education. No credit is given for work completed by correspondence, and not more than six semester hours credit is allowed for extension courses. Any extension work accepted must be specifically approved by the Dean of the College.

# Division of Nursing Education



## *Advanced Professional Programs*

A DIVISION of Nursing Education was established in December, 1944, as an integral part of the Department of Education of Duke University. At the present time, qualified graduate nurses may work toward the degree of Bachelor of Science in Nursing Education.

The primary objective of the degree program for graduate nurses is to prepare qualified individuals for teaching and supervisory positions in schools of nursing and in nursing service agencies. Facilities for instruction include the undergraduate colleges of Duke University, the School of Nursing, the Medical School and Duke Hospital.

### *1. Degree of Bachelor of Science in Nursing Education*

#### ADMISSION

Students who wish to work toward the degree of Bachelor of Science in Nursing Education must apply for admission to the Woman's College of Duke University. To be accepted they must satisfy the following requirements with respect to their high school education:

1. Graduation from an approved secondary school with at least fifteen acceptable units of credit.
2. Twelve units must be in English, foreign language, history and social studies, mathematics and natural science.
3. Three units may be in subjects listed above or in such subjects as art, commercial subjects, household economics, or music.

Students who have satisfactorily completed one or more years of college work in an approved college or university must also fulfill the requirements listed above with respect to high school credit, must present official transcripts of all work done in other institutions, and must have honorable dismissal from each institution previously attended.

Other basic minimum requirements include:

4. Graduation from an approved school of nursing.
5. Satisfactory ratings from individuals, with whom the applicant has had fairly recent contact.

## OUTLINE OF PROGRAM

Credit for 120 semester hours (exclusive of physical education) on which an average grade of at least "C" is made is required for the degree of Bachelor of Science in Nursing Education. The work of the final year must be taken in residence at Duke University. One year of experience as a graduate nurse is required before the degree is awarded. The program of studies leading to this degree must include:

1. Minimum general education requirements (may be satisfied at Duke University or at any accredited college or university).

	S.H.
English 1-2 .....	6
Natural Science .....	8
History, Economics or Political Science .....	6
Sociology .....	3-6
Psychology .....	3-6
Electives .....	12-15
(Literature, art, music, religion, ethics, language)	
	<hr/> 44

2. Basic Nursing Program ..... 40 (maximum)

In evaluating credit the standing of the School of Nursing, the record of the individual student, and scores on basic nursing achievement tests administered by the Department of Measurement and Guidance of the National League for Nursing to all candidates as soon as they enroll in their first course are taken into consideration.

3. Courses in Education and Nursing Education.

	S.H.
88. Educational Psychology: Learning and Measurement.....	3
118. Educational Psychology: Psychological Development.....	3
84N. Social Foundations of Nursing Education. ....	3
101N. The Curriculum of the School of Nursing.....	3
115N. } Nursing Education—Principles and Practice.....	8
116N. }	
117. Community Nursing—Seminar and Field Trips to Community Agencies .....	3
	<hr/> 23

4. Minimum of fifteen semester hours in one field, such as zoology, chemistry, physics, sociology, or psychology, or in a clinical area.

The following courses in clinical areas are offered at present:

	S.H.
130N. Psychosomatic Nursing .....	4
131N. } Psychiatric Nursing .....	8
132N. }	
133N. Seminar in Psychiatric Nursing.....	3
134N. } Medical and Surgical Nursing.....	8
135N. }	
136N. Seminar in Medical and Surgical Nursing.....	3

Other courses which are offered to graduate nurses are as follows:

192N. Principles and Methods of Teaching in School of Nursing.....	3
193N. Ward Administration and Teaching.....	3
195N. Personnel Work in Schools of Nursing.....	3
124N. Problem in Nursing Care.....	2

## DESCRIPTION OF COURSES

- 84N. SOCIAL FOUNDATION OF NURSING EDUCATION.—3 s.h.  
ASSISTANT PROFESSOR RAPPAPORT
- 101N. THE CURRICULUM IN THE SCHOOL OF NURSING.—3 s.h.  
ASSISTANT PROFESSOR INGLES
- 115N-116N. NURSING EDUCATION: PRINCIPLES AND PRACTICE.—8 s.h.  
ASSISTANT PROFESSOR RAPPAPORT
- 117N. COMMUNITY NURSING SERVICE.—3 s.h.  
ASSISTANT PROFESSOR MASSEY
- 120N. NURSING EDUCATION: PROBLEMS IN NURSING CARE.—3 s.h.  
ASSISTANT PROFESSOR INGLES, ASSISTANT PROFESSOR ZUKOWSKI
- 124N. NURSING EDUCATION: TEACHING OF THE NURSING ARTS.—  
3 s.h. ASSISTANT PROFESSOR RAPPAPORT, MISS INGLES
- 130N. PSYCHOSOMATIC NURSING.—4 s.h. ASSISTANT PROFESSOR ZUKOWSKI
- 131N-132N. PSYCHIATRY AND PSYCHIATRIC NURSING.—8 s.h.  
ASSISTANT PROFESSOR ZUKOWSKI, AND MEDICAL STAFF IN PSYCHIATRY
- 133N. SEMINAR IN PSYCHIATRIC NURSING.—3 s.h.  
ASSISTANT PROFESSOR ZUKOWSKI, AND MEDICAL STAFF IN PSYCHIATRY
- 134N-135N. ADVANCED MEDICAL AND SURGICAL NURSING.—8 s.h.  
ASSISTANT PROFESSOR INGLES AND MEDICAL STAFF
- 136N. SEMINAR IN MEDICAL OR SURGICAL SPECIALTY.—3 s.h.  
ASSISTANT PROFESSOR INGLES
- 192N. PRINCIPLES AND METHODS OF TEACHING IN SCHOOLS OF  
NURSING.—3 s.h. ASSISTANT PROFESSOR RAPPAPORT
- 193N. WARD ADMINISTRATION AND TEACHING.—3 s.h.  
ASSISTANT PROFESSOR INGLES
- 195N. PERSONNEL WORK IN SCHOOLS OF NURSING.—3 s.h.  
ASSISTANT PROFESSOR JOHNSTON

## *II. Degree of Master of Education with a Major in Nursing Education*

(Not offered in 1953-1954)

## ADMISSION

A student who wishes to work toward the degree of Master of Education with a major in Nursing Education must apply for admission to the Graduate School of Duke University. To be eligible for admission as a candidate for this degree she must meet the following requirements:

- (1) Graduation from an approved college or university with an average grade of not less than "B."
- (2) Satisfactory standing on the Graduate Record Examination.
- (3) Satisfactory standing on a test of mental ability.
- (4) Ability to write acceptable English as demonstrated on a test.
- (5) Graduation from an approved school of nursing.
- (6) Satisfactory ratings from three individuals, preferably former teachers and supervisors with whom the individual has had fairly recent contact.

## OUTLINE OF PROGRAM

### Basic Required Courses in Education:

	S.H.
300. Methods of Educational Research.....	3
304. The School as an Institution .....	3
305. The Nature, Function, and Reorganization of the Curriculum.....	3
317. The Psychological Principles of Education.....	3
	<hr/> 12

### Courses in Nursing Education:

310. Organization and Administration of Schools of Nursing.....	4
311. Problems in Personnel Administration in Nursing.....	4
312. Research Problem .....	4
	<hr/> 12
Minor, intra-departmental or extra-departmental.....	6
	<hr/> 30

Candidates for the Master of Education degree must have had two years of experience including administration, supervision, or teaching in a school of nursing or nursing service organization when the degree is granted.

## *Tuition, Fees, and Other Expenses*

### FEES PER SEMESTER

A matriculation fee of \$20.00 is paid at the time of acceptance to Woman's College.

Tuition .....	\$175.00
General Fee (Undergraduate) including health, library and incidental fees .....	75.00
General Fee (Graduate School) .....	60.00
Laboratory Fee (amount depends upon course which is taken)	

### LIVING ARRANGEMENTS

Students may make their own arrangements to live in private homes.

### EMPLOYMENT

A limited number of nurses may be employed at Duke Hospital during the time they are taking courses at Duke University. Nurses who are working full-time (44 hours per week) may take one course each semester. Nurses who wish to reduce hours of work per week to 36, with a corresponding reduction in salary, may take two courses each semester.

For information about employment write to the Director of Nursing Service, Duke Hospital.



# Program in Medical and Surgical Nursing



A twelve-month program in medical and surgical nursing is offered to qualified graduate nurses. The primary objective of this program is to prepare individuals for head nurse positions in medical and surgical units of hospitals. Credit for the entire program applies toward the degree of Bachelor of Science in Nursing Education. Students who are interested in teaching and supervision in medical and surgical nursing are urged to complete all requirements for the degree.

## OUTLINE OF THE PROGRAM

<i>Fall Semester</i>	<i>Credits</i>	<i>Spring Semester</i>	<i>Credits</i>
130N Psychosomatic Nursing ..	4	193N Ward Administration and Teaching .....	3
134N Medical and Surgical Nursing .....	4	135N Medical and Surgical Nursing .....	4
84N Social Foundations of Nursing Education .....	3	117N Community Nursing ....	3
Elective .....	3-6	Elective .....	3-6
	<u>14-17</u>		<u>13-16</u>

## SUMMER SESSION

S136N Seminar in Medical and Surgical Nursing.....	3
S124 Problem in Nursing Care .....	2

The courses in medical and surgical nursing and in psychosomatic nursing will include from four to 16 hours per week of field work in medical and surgical divisions and medical and surgical out-patient clinics of Duke Hospital, and with various community health and social agencies. Students who are interested in a particular medical or surgical specialty (orthopaedic nursing, neurosurgical nursing, etc.) may have added experience in that area during the summer months. For some students experiences in other hospitals may be arranged.

Requirements for admission are the same as for all students admitted to the program which leads to the degree of Bachelor of Science in Nursing Education.

# Program in Psychiatric Nursing



A twelve-month program in psychiatric nursing is offered to qualified graduate nurses. The primary objective of this program is to prepare individuals for head nurse positions in psychiatric units of hospitals, child guidance clinics, and related fields. Students who wish to qualify for supervisory or teaching positions in the psychiatric field are advised to complete the program which leads to the degree of Bachelor of Science in Nursing Education.

Facilities for clinical teaching and experience include the psychiatric in-patient unit, the out-patient department, the psychosomatic service of Duke Hospital, child guidance clinics, and the State Hospital in Raleigh, N. C.

Students have approximately 20 hours per week of carefully planned laboratory practice on clinical services, during which time they work closely with patients presenting a wide variety of emotional disturbances. They also have an opportunity to participate in staff conferences and clinics at Duke Hospital and at the State Hospital in Raleigh.

Approximately 30 semester hours of credit toward the Bachelor of Science in Nursing Education degree may be earned during the calendar year.

A limited number of training stipends are available through the U. S. Public Health Service for those nurses who have demonstrated particular interest and aptitude in this field.

Requirements for admission are the same as for all students admitted to the program which leads to the degree of Bachelor of Science in Nursing Education.

## OUTLINE OF PROGRAM (ONE YEAR)

Fall Semester		<i>Credits</i>
Educ. 130N	Psychosomatic Nursing .....	4
Educ. 131N	Psychiatric Nursing .....	4
Soc. 101	General Sociology .....	5
Educ. 84N	Social Foundations of Nursing Education.....	3
		<hr/> 16
Winter Semester		
Educ. 132N	Psychiatric Nursing .....	4
Educ. 120N	Problem in Nursing Care .....	2
Educ. 193N	Ward Administration and Teaching .....	3
Psych. 116	Psychology of Adjustment .....	3
		<hr/> 12
Summer		
Educ. 133N	Seminar in Psychiatric Nursing .....	3

# Clinical Program in Operating Room Nursing



A program in operating room nursing of nine months in length is offered to qualified graduate nurses who are interested in preparing for head nurse positions in an operating room.

## ADMISSION

An individual who is interested in the program in operating room nursing must apply for admission to the Woman's College of Duke University as a *special* student. To be admitted as a special student the following records are required:

1. Transcript of high school or of college record.
2. Transcript of nursing school record.
3. Satisfactory rating from a nursing service administrator or supervisor with whom the applicant has had recent contact.

In addition to the above requirements an applicant must have had a minimum of six months' experience as an operating room nurse.

## OUTLINE OF PROGRAM

### \*Courses in Nursing Education and Related Subjects

	<i>Credits</i>
84N. Social Foundations of Nursing Education .....	3
120. Problem in Nursing Care .....	2
193. Ward Administration and Teaching .....	3
195. Personnel Work in School of Nursing.....	3
Elective .....	3
	<hr/> 14

## CLASSES AND RELATED EXPERIENCE IN OPERATING ROOM NURSING

The course in operating room nursing includes 60 hours of organized class work during the period of nine months and an average of 36 hours each week on duty, of which 18 hours is supervised experience. The class work includes a discussion of the facts and principles of chemistry, bacteriology, anatomy and physiology, underlying preparation for and assistance with surgical operations, both general and special. The history of anesthesia is presented, as well as present day trends and developments in the field.

In the related field work the nurse becomes acquainted with the functions of various departments of the hospital and their relation-

\* Credit toward the degree of B.S. in Nursing Education is given for these courses.

ship to the operating room. She has an opportunity to prepare for and assist with various surgical operations including general surgery, chest surgery, neuro-surgery, orthopaedic surgery, urological surgery, plastic surgery and eye, ear, nose and throat surgery. She is also given an opportunity to assist with administrative and supervisory functions in the operating room, and with planning and conducting a teaching program for students and others.

### FEES

Each student pays the regular University fees for courses in Nursing Education and related subjects. The fee per credit hour is \$12.00. In addition a matriculation fee of \$5.00 is paid each semester.

### LIVING ARRANGEMENTS

Students who are taking the course in operating room nursing receive full maintenance in return for service to the hospital.

### HEALTH CARE

Each student is required to carry hospitalization insurance to cover the cost of hospitalization during illness.

A sick leave of seven days is given during the nine months' period.

### DATES OF ADMISSION

Students are admitted to the program in operating room nursing at the beginning of each semester.

### CERTIFICATE

At the completion of the nine months' program in operating room nursing the student is granted a certificate.

### INFORMATION

For further information about any program write to Director of the Division of Nursing Education, Duke Hospital, Durham, North Carolina. Application for admission to the Woman's College should be made to the Committee on Admissions, College Station, Durham, North Carolina.





# THE SCHOOL OF FORESTRY

Fall Semester begins September 17, 1953

Spring Semester begins February 2, 1954

# Forestry in the Graduate School



MAJOR and minor work is offered in the scientific aspects of forestry leading to the A.M. and Ph.D. degrees, which are administered by the Graduate School of Arts and Sciences. Work for these degrees may be pursued only in forest-tree physiology, wood anatomy and properties, forest pathology, silvics, forest soils, forest mensuration, forest entomology, and forest economics. Students who have had specialized training in botany or soil science and in allied basic subjects, such as physics, chemistry, geology, and zoology, may pursue graduate study and research only in the specialized fields for which their previous work has qualified them. Students who do not have previous training in forestry will be required to complete a minimum of thirty semester hours of approved work in forestry as a preliminary requirement to advanced study for the A.M. and Ph.D. degrees. Holders of these degrees will not be regarded as professionally trained foresters.

Applicants for admission to the Graduate School must ordinarily have made, in their undergraduate work, not less than a "B" average and must not have concentrated excessively in one field of study to the detriment of a rounded program. They should have met substantially the requirements for the A.B. or B.S. degree at Duke University.

In addition to fulfilling the usual requirements for admission, the applicant must satisfy the Director of Graduate Studies in Forestry as to his liberal arts training, as well as to his preliminary training in the field of forestry.

For detailed information concerning admission to the Graduate School, and for regulations governing candidacy for the A.M. and Ph.D. degrees, language requirements, residence requirements, and other regulations concerning these degrees, the student should consult the *Bulletin* of the Graduate School of Arts and Sciences.

## *Educational Facilities*

The School of Forestry is located in the Social Science and Biology Buildings on the West Campus. The School is provided with instruments and tools for use in both field and laboratory work in silvics, silviculture, harvesting, and forest mensuration. Modern surveying instruments and accessory equipment are available for work in forest surveying.

Fully equipped laboratories are provided for work in forest entomology, wood anatomy and properties, timber mechanics, and bonding of wood. A modern forest soils laboratory equipped for physical and chemical studies is available. In the field of seasoning and preservation of wood a commercial-sized, single-compartment dry kiln and a fully equipped experimental pressure treating cylinder are available for instruction and research.

Facilities are also available for advanced work in plant physiology, plant anatomy, plant taxonomy, genetics, plant ecology, plant pathology, and the several branches of zoology.

The School of Forestry Library contains a growing collection of material on forestry and related subjects. It includes important books and periodicals in English and in French, German, and other foreign languages. The Library is well provided with American material, including Federal and State documents and reports. Over 150 periodicals and serials of importance in forestry and related fields are received by subscription or exchange.

Greenhouses, connected to the Biology Building through a soil-storage and work room, provide adequate space for experimental work.

A nursery has been established by the University for joint use of the Sarah P. Duke Floral Garden, the Botany Department, and the School of Forestry. The forestry section of this nursery is used mainly for the growing of planting stock for the Arboretum and trees needed for research or other special purposes.

West Virginia Pulp and Paper Company has made available to Duke University a field headquarters for work in forests of the South Atlantic Coastal Plain located 18 miles northwest of Summerville, South Carolina. This company has extensive forest holdings under close supervision of a staff of technical foresters in South Carolina and permits access to its lands for instruction and research in forestry and allied fields. This headquarters camp with modern facilities for as many as 45 men is used as a base primarily for utilization work each spring and for special work in silviculture. The quarters may be available at other times for students and faculty members of the Duke School of Forestry working on special problems or doing advanced work in any of the fields of forestry concerned with coastal plain problems. The establishment of this headquarters camp in the coastal plain region makes it possible for the School of Forestry to provide instruction and conduct research in this important forest area in which many privately owned forests as well as public forests are intensively managed for the production and utilization of a wide range of forest products. The Southern Railway Demonstration Forest is within easy reach of this center and will also be available for work, particularly with longleaf pine.

The School sponsors occasional lectures on forestry and conservation by speakers of national reputation.

An active Forestry Club is maintained as a student organization to bring the members of the School and students in the undergraduate academic-forestry curriculum into closer contact and to afford opportunities for extracurricular activities not otherwise available.

### *The Duke Forest*

The Duke Forest, located in Durham and Orange counties, North Carolina, consists of five main units: namely, the Durham, New Hope Creek, Hillsboro, Eno, and Blackwood divisions. Early in the development of Duke University it was recognized that the possession of such an area offered an unusual opportunity for the development of educational work in forestry. For a detailed description of the Forest and the Arboretum see the *Bulletin of the School of Forestry*.

# Fellowships, Scholarships, and Graduate Assistantships in Forestry



A NUMBER of fellowships, scholarships, and research assistantships are available to men who offer promise of becoming leaders in the forestry profession. These will be awarded for high character and marked scholastic ability as judged by education, experience, and personal references. For more detailed information see the *Bulletin of the School of Forestry*.

## Tuition, Fees and Expenses



THE following table shows the general fees and charges collected from all students. All fees for each semester are due and payable, unless otherwise specified, at the time of registration at the beginning of that semester, and no student is admitted to classes until arrangements have been made with the Treasurer of the University for the settlement of fees.

### *General Fees*

Tuition, per semester.....	\$175.00
General Fee, per semester.....	60.00

Forestry students may obtain admission to all regularly scheduled University athletic contests held on the University grounds during the entire academic year by payment of the athletic fee of \$10.00 per year plus any Federal taxes that may be imposed. This fee is payable in the fall semester.

Due to rising costs a readjustment in charges is being considered. In the event of an adjustment applicants will be notified.

TRANSCRIPTS: A student desiring to transfer from Duke University to another institution is entitled to one transcript of his record. A charge of one dollar is made for each additional copy.

PAYMENTS TO FELLOWS AND SCHOLARS: Payments by the University of stipends to fellows, research assistants, and scholars are



made in four installments, on November 25, January 25, March 25, and May 25. Fellows and scholars are required to pay the regular tuition fee and such additional fees as are ordinarily required of graduate students.

### *Living Accommodations*

Rooms for men are provided in the men's graduate center. Food service is cafeteria style. For more complete information see the *Bulletin of the School of Forestry*.

## Requirements for Admission to the School of Forestry



THE admission requirements of the School of Forestry for work toward the Master of Forestry degree presuppose that an applicant is either:

1. A graduate of a scientific school, college, or university of high standing, but without professional training in forestry, or
2. A graduate of a professional school of forestry, or
3. A student who has successfully completed the pre-forestry curriculum of one of the institutions cooperating with the School of Forestry.

Each applicant must present a certified transcript of his academic record showing the courses he has taken, the number of credit hours he has earned and the grades received. The total number of quality points\* must be at least one and one half times the total credit hours to meet the minimum scholastic standards required for admission to the School. An applicant also must have satisfactorily completed undergraduate work in minimum amount, as follows:

One year of biology, including at least one semester of botany, or one year of botany.

One year each of English composition and of chemistry.

One course each in physics and in the principles of economics.

Mathematics, through college algebra and trigonometry.

It is urged that an applicant without professional training in forestry present additional credits in the above subjects and in one or more of the following subjects: soils, geology, mineralogy, petrology, climatology, surveying, languages (particularly German and French), sociology, political science, philosophy, psychology, and zoology.

\* Grades for each hour of college credit and also for credit earned in the School of Forestry are valued in quality points as follows: "A," 3 points; "B," 2 points; "C," 1 point; "D," no points; and "F," no credit and —1 point.

An applicant who is a graduate of a professional school of forestry will present a certified transcript of scholastic record showing the award of a degree. Before registering for the first semester of residence, such applicants will be required to select the branch or branches of forestry in which they wish to concentrate the major part of their work and to prepare their proposed programs in conference with the appropriate faculty adviser.

Students must make application for admission in advance of the opening of the school year. Those students entering without acceptable courses in plane surveying, forest surveying, and forest mensuration must take the twelve weeks of work in these subjects in the Summer Session, and are required to submit their applications prior to May 1. Students entering with advanced standing in surveying and forest mensuration should make application before September 1. Application blanks will be sent upon request made to the Dean of the School of Forestry.

## Cooperative Plan of Study with Selected Colleges and Universities



Aware of the far reaching values to be derived from training in the liberal arts and sciences, the Duke School of Forestry, since its inception, has had the cooperation of Trinity College, the men's undergraduate college of arts and sciences of Duke University, in preparing students for professional careers in forestry. Under the plan a student devotes his first three years to a coordinated and carefully integrated program of study in the basic arts and sciences in Trinity College. The summer between his junior and senior year and the two following school years are spent in the School of Forestry. Upon the successful completion of this five-year course of study, a student has earned the Bachelor of Science degree from Trinity College and the professional Master of Forestry degree from the Duke School of Forestry.

Based upon the experience and success of this cooperative program with Trinity College, the School of Forestry in 1952 initiated similar programs of collaboration with a selected group of colleges and universities located throughout the United States. These programs offer students the numerous advantages of a broad background in liberal arts and sciences as preparation for later professional training. A stu-

dent intent upon following such a course of study should make application to one of the colleges listed in the *Bulletin of the School of Forestry*. Admission requirements and other information pertinent to matriculation may be obtained from each of these institutions. Not later than the end of the first semester of the third year in the college or university of his choice, the student must make formal application for admission to the Duke School of Forestry. To qualify for admission under these programs, a student must have followed a planned course of study arranged in consultation with his advisor, must have the official recommendation of his college, and must meet the minimum requirements for admission to the Duke School of Forestry.

# Requirements for the Degree of Master of Forestry



THE degree of Master of Forestry (M.F.) is conferred upon students who have satisfactorily completed two years of study in technical forestry and one term of thirteen weeks' work in plane surveying, forest surveying, and forest mensuration in the Summer Session. In addition to the Summer Session work a total of not less than sixty semester hours' credit is required for the M.F. degree, of which at least fifty shall have been obtained in the School of Forestry. Each student, to qualify for the M.F. degree, must have obtained at least one and one half quality points per semester hour of credit under the quality-point system.

Field studies of typical timber-harvesting, manufacturing, and other utilization operations in the South Atlantic Coastal Plain are conducted from the School's field headquarters during a two-week period in the spring semester as part of the work required of students registered in Harvesting and Processing Forest Products (Forestry 212). Other students may be permitted or advised to take this work for which one semester hour of credit may be earned by registering for it in Forestry 212A. A similar period of field work in forest soils, silviculture, forest management, and other subjects in the coastal plain is available to students.

No student may take less than fourteen or more than eighteen hours in any one semester without special permission of the School of Forestry Faculty. The following work will be required of all candidates for the M.F. degree:

## SUMMER SESSION

	S.H.
Plane Surveying (C.E. S110) .....	4
Forest Surveying (F. S150) .....	5
Forest Mensuration (F. S151) .....	4

## FIRST YEAR

<i>First Semester</i>		<i>Second Semester</i>	
	S.H.		S.H.
Dendrology (F. 253) .....	3	Harvesting and Processing Forest	
Properties of Wood (F. 259) .....	3	Products (F. 212) .....	4
Forest Soils (F. 261) .....	3	Forest Pathology (F. 224) .....	3
Economics of Forestry (F. 277) .....	3	Sampling Methods (F. 251) .....	3
Electives .....	3	Silvics (F. 264) .....	3
		Electives .....	2

## SECOND YEAR

Two curricula in forestry are available after the common minimum requirements for both have been met. One is in general forestry; the other in forest products. The required work in each curriculum, in addition to that common to both, is:

## GENERAL FORESTRY CURRICULUM

*First Semester**Second Semester*

	S.H.		S.H.
Forest Entomology (F. 231) .....	3	Soils and Silviculture Spring	
Silviculture (F. 265) .....	3	Trip (F. 266) .....	1
Applied Silviculture (F. 267) .....	1	Forest Valuation (F. 278) .....	3
Forest Protection (F. 273) .....	2	Management Plans (F. 282) .....	2
Forest Management (F. 281) .....	3	Thesis research and electives .....	9
Thesis research and electives .....	3		

## FOREST PRODUCTS CURRICULUM

*First Semester**Second Semester*

	S.H.		S.H.
Seasoning and Preservation (F. 213) ..	3	Forest Products Entomology (F. 232) ..	3
Silviculture (F. 265) .....	3	Wood Anatomy (F. 260) .....	3
Forest Management (F. 281) .....	3	Industrial Engineering (Eng. 158) ....	3
Advanced Forest Utilization (F. 311) ..	3	Thesis research and electives .....	6
Thesis research and electives .....	3		

Each candidate is required to file in the office of the Dean of the School of Forestry on or before May 15 three copies of a thesis, typewritten and bound in accordance with regulations set forth by the Faculty. The thesis shall be based upon an original study made in the field, laboratory, or library.

Work of equivalent grade done in residence at other institutions may, with the approval of the Faculty, be accepted as credit toward the M.F. degree. A minimum of one year's residence is required at Duke University. Students who have had satisfactory undergraduate training in forestry may, with the approval of the Faculty, elect to devote the major portion of their time to research under the supervision of one or more members of the Faculty and prepare a more comprehensive thesis than is required of students entering the School without previous work in forestry. Students in the School of Forestry may take in allied departments of the University as electives certain courses approved by the Faculty.



# Requirements for the Degree of Doctor of Forestry



THE degree Doctor of Forestry (D.F.) is a professional and research degree conferred on those students who have satisfactorily completed specified requirements of advanced study and research. Although course work is a necessary part of a student's program, the mere accumulation of course credits will not be sufficient for the attainment of this degree. The granting of the D.F. degree is based primarily upon the student's thorough knowledge of a specialized field of study and upon the production of an acceptable dissertation embodying the results of original research. The general requirements, which are presented in the following paragraphs, ordinarily will be rigidly adhered to, although deviations in exceptional cases may be made with the approval of the Faculty of the School of Forestry.

The D.F. degree is offered with majors (also minors) in the following branches of forestry: forest economics, forest entomology, forest management, forest mensuration, forest pathology, forest soils, forest-tree physiology, forest utilization, silvics, silviculture, and wood and forest products technology.

Prospective students should correspond with the Dean of the School of Forestry on all matters pertaining to admission to the School.

**ENTRANCE REQUIREMENTS:** A prospective student must have received the degree of Master of Forestry, or its equivalent, from a school of forestry of recognized standing. His scholastic average for his undergraduate work must be at least  $1\frac{1}{2}$  quality points, and that of his graduate studies two quality points per hour of credit.

An applicant must file a formal application for admission together with transcripts of his undergraduate and graduate academic records. In his application he should clearly state the branch of forestry in which he desires to concentrate, and if possible, the specific research.

The Committee on Admissions of the School of Forestry, together with the prospective student's major adviser, will determine if the qualifications of the applicant meet entrance requirements.

**RESIDENCE REQUIREMENTS:** The period of resident study beyond the M.F. degree or its equivalent is two years. Course work of equal grade taken at another college or university may, with Faculty approval, be accepted in partial fulfillment of the residence requirement, but the last year of residence must be at Duke University.

With the approval of the Faculty, one year of resident credit may be granted for work taken in the regular terms of the Summer Session of Duke University. Graduate work of a fragmentary nature taken over a period of several years will not meet the residence requirement.

**PROGRAM OF STUDY:** A committee consisting of five members of the Faculty will be appointed by the Dean to supervise the work of each student. This committee shall consist of a major adviser, a minor adviser and three other Faculty members. The major adviser will serve as Committee Chairman.

If the student's previous training is inadequate, he will be required to remedy such deficiencies as may be directed by his committee. The student, in consultation with his advisers, will prepare a program of study and research. The proposed program will be presented to the committee for consideration and acceptance, and then submitted to the Faculty of the School of Forestry for final approval. The minor requirement may be fulfilled by advanced course work or course work and research. Requirements for the minor will be established by the Faculty member in charge of the field. The minor may be taken in the School of Forestry, or in another department, school, or college in the University.

A grade point average of at least two quality points per credit hour is required of all work toward the doctorate.

**FOREIGN LANGUAGES:** A reading knowledge of two foreign languages is required. One of these shall be either French or German; the other will be selected by the committee with the view toward determining the student's needs. The foreign language examinations will be conducted by the appropriate language departments or, for certain languages, by a qualified member of the Faculty of Duke University.

**PRELIMINARY EXAMINATION:** At least six months before the student expects to receive the D.F. degree, and after he has completed the foreign language requirement and most of his formal course work, he will be required to take a comprehensive preliminary examination. The examination will be written in subjects specified, and may be followed by an oral examination given by the committee. The decision as to whether the examination has been passed or failed is the responsibility of the committee.

Should the student fail the preliminary examination he may apply for a second examination to be taken not earlier than six months after the first. Failure in the second examination renders the student ineligible to continue work for the D.F. degree at Duke University.

Upon satisfactory completion of the preliminary examination the student shall be considered a candidate for the D.F. degree.

**DISSERTATION:** In addition to obtaining adequate training in

the field of his specialty, the student must demonstrate his ability to plan and conduct sound, original research. Evidence of this accomplishment must be presented in the form of an acceptable dissertation embodying the results of original work, which is a definite contribution to knowledge.

The subject of the dissertation must receive the approval of the Faculty, and the title filed with the Dean of the School of Forestry on or before October 15 of the academic year in which the candidate desires to take his final examination.

Four typewritten copies of the dissertation in approved form, must be deposited with the Dean of the School of Forestry on or before April 15 of the academic year in which the student expects to obtain the D.F. degree. The original and first carbon copy will be deposited in the University Library, the major adviser will receive one copy, and the fourth copy will be returned to the student.

The dissertation must be published either in its original form or in a modified form approved by the major adviser. In its published form the title page should include this statement: "A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Forestry in the School of Forestry of Duke University." In some instances an abstract, published in a recognized journal, will be considered as meeting the publication requirement.

The candidate must deposit a fee of \$50.00 with the Treasurer of the University on or before May 1 of the year the degree is to be conferred. If the dissertation is published in acceptable form within three years from the time the degree is granted, the deposit will be returned to the student upon receipt of 10 reprinted copies of the publication.

**FINAL EXAMINATION:** The final examination will be in defense of the candidate's dissertation and on related subject matter. It will be oral and will be conducted by the supervisory committee. At least six months must elapse between the dates of the preliminary and the final examinations.

# Courses and Subjects of Instruction



*With the exception of the Summer Session courses, odd-numbered courses are offered in the autumn semester, and even-numbered courses are offered in the spring semester.*

## IN THE SUMMER SESSION

C.E. S110. PLANE SURVEYING.—4 s.h.

MR. BROWN

S150. FOREST SURVEYING.—Prerequisites: Civil Engineering S110, plane surveying, or equivalent. 5 s.h.

ASSOCIATE PROFESSOR CHAIKEN

S151. FOREST MENSURATION.—4 s.h.

PROFESSOR SCHUMACHER

S261. FOREST SOILS.—Prerequisites: Chemistry 1 and 2, and Physics 1 or equivalents; physical geology, mineralogy, petrology and analytical chemistry are also desirable. 2 s.h.

PROFESSOR COILE

## FOR SENIORS AND GRADUATES

212. HARVESTING AND PROCESSING FOREST PRODUCTS.—4 s.h.

PROFESSOR WACKERMAN

213. SEASONING AND PRESERVATION OF WOOD.—3 s.h.

PROFESSOR WACKERMAN

214. MARKETING FOREST PRODUCTS.—Prerequisites: Forestry 212 or equivalent. 3 s.h.

PROFESSOR WACKERMAN

224. FOREST PATHOLOGY.—Prerequisites: Botany 1 and 2, and Forestry 253, or equivalents. 3 or 4 s.h.

PROFESSOR WOLF

231. FOREST ENTOMOLOGY.—3 s.h.

ASSOCIATE PROFESSOR ANDERSON

232. FOREST PRODUCTS ENTOMOLOGY.—3 s.h.

ASSOCIATE PROFESSOR ANDERSON

236. FOREST GAME MANAGEMENT.—3 s.h.

ASSOCIATE PROFESSOR ANDERSON

251. SAMPLING METHODS IN FORESTRY.—Prerequisite: Forestry S151. 3 s.h.

PROFESSOR SCHUMACHER

252. FOREST MENSURATION.—Prerequisite: Forestry 251. 3 s.h.

PROFESSOR SCHUMACHER

253. DENDROLOGY.—Prerequisite: one year of botany. 3 s.h.

PROFESSOR HARRAR

255. BONDING OF WOOD.—Prerequisite: Forestry 260 or equivalent. 3 s.h.

PROFESSOR HARRAR

257. DESIGN OF FORESTRY EXPERIMENTS AND ANALYSIS OF DATA.—5 s.h.

PROFESSOR SCHUMACHER

259. PROPERTIES OF WOOD.—Prerequisites: one year of college chemistry; one course in college physics. 3 s.h.

PROFESSOR HARRAR

260. WOOD ANATOMY.—Prerequisite: One year of botany. 3 s.h.

PROFESSOR HARRAR

261. FOREST SOILS.—Prerequisites: Chemistry 1 and 2, and Physics 1, or equivalent; physical geology, mineralogy, petrology, and analytical chemistry are also desirable. 3 s.h.

PROFESSOR COILE

264. SILVICS.—Desirable prerequisites: plant physiology, plant ecology, and Forestry 253 and 261, or equivalents. 3 s.h.  
PROFESSOR KORSTIAN
265. THEORY AND PRACTICE OF SILVICULTURE.—Prerequisite: Forestry 264 or equivalent. 3 s.h.  
PROFESSOR KORSTIAN
266. SOILS AND SILVICULTURE SPRING TRIP.—Prerequisite: Forestry 261, 265 or equivalent. 1 s.h.  
PROFESSOR COILE
267. APPLIED SILVICULTURE.—Prerequisite: Forestry 265 or equivalent. 1 s.h.  
PROFESSOR KORSTIAN
268. FOREST SEEDING AND PLANTING.—2 s.h.  
PROFESSOR KORSTIAN
273. FOREST PROTECTION.—2 s.h.  
ASSOCIATE PROFESSOR CHAIKEN
275. FORESTRY POLICY.—2 s.h.  
ASSISTANT PROFESSOR STOLTENBERG
277. ECONOMICS OF FORESTRY.—Prerequisite: at least one course in the principles of economics. 3 s.h.  
ASSISTANT PROFESSOR STOLTENBERG
278. FOREST VALUATION.—Prerequisite: Forestry 277 or consent of the instructor. 3 s.h.  
ASSISTANT PROFESSOR STOLTENBERG
281. FOREST MANAGEMENT.—Prerequisite: Forestry S150, S151, or equivalent. 3 s.h.  
ASSOCIATE PROFESSOR CHAIKEN
282. MANAGEMENT PLANS.—Prerequisites: Forestry 265 and 281 or equivalents. 2 s.h.  
ASSOCIATE PROFESSOR CHAIKEN
- 212A TO 282A. SPECIAL STUDIES IN FORESTRY.—Credits to be arranged.  
THE STAFF

## FOR GRADUATES

301-302. ADVANCED STUDIES IN FORESTRY.—Credits to be arranged. To meet individual needs of graduate students in the following branches of forestry:

- A. SILVICS.—Prerequisites: Forestry 253, 261, and 264 or equivalents.  
PROFESSOR KORSTIAN
- B. FOREST SOILS.—Prerequisite: Forestry 261 or equivalent. PROFESSOR COILE
- C. SILVICULTURE.—Prerequisites: Forestry 265, 266 and 267 or equivalents.  
PROFESSOR KORSTIAN
- D. FOREST MANAGEMENT.—Prerequisite: Forestry 281 or equivalent.  
ASSOCIATE PROFESSOR CHAIKEN
- E. FOREST ECONOMICS.—Prerequisite: Forestry 277 or equivalent.  
ASSISTANT PROFESSOR STOLTENBERG
- F. PROPERTIES OF WOOD.—Prerequisites: Forestry 259 and 260, or equivalents.  
PROFESSOR HARRAR
- G. FOREST MENSURATION.—Prerequisite: Forestry 252, or equivalent.  
PROFESSOR SCHUMACHER
- H. FOREST ENTOMOLOGY.—Prerequisites: Forestry 231, 232 or equivalent.  
ASSOCIATE PROFESSOR ANDERSON
- I. FOREST UTILIZATION.—Prerequisite: Forestry 212 or equivalent.  
PROFESSOR WACKERMAN
- J. DENDROLOGY.—Prerequisite: Forestry 253 or equivalent.  
PROFESSOR HARRAR
311. ADVANCED FOREST UTILIZATION.—Prerequisite: Forestry 212 or equivalent. 3 s.h.  
PROFESSOR WACKERMAN
320. SEMINAR IN SILVICULTURE.—Prerequisite: At least one course in silviculture. 3 s.h.  
PROFESSOR KORSTIAN
322. SOIL CLASSIFICATION AND MAPPING.—Prerequisite: Forestry 261. 2 s.h.  
PROFESSOR COILE



323-324. ADVANCED FOREST PATHOLOGY.—Prerequisites: plant physiology and forest pathology. Credits to be arranged.  
PROFESSOR WOLF

326. ADVANCED FOREST SOILS.—Prerequisites: analytical chemistry and Forestry 261. 3 s.h.  
PROFESSOR COILE

351-352. ADVANCED PHYSIOLOGY OF FOREST TREES.—Prerequisites: plant physiology and plant ecology and silvics. Credits to be arranged.  
PROFESSOR KRAMER

356. ADVANCED FOREST ECONOMICS.—Prerequisites: Forestry 277 and 278 or consent of the instructor; advanced courses in economics and economic theory are desirable. 2 s.h.  
ASSISTANT PROFESSOR STOLTENBERG

357-358. RESEARCH IN FORESTRY.—Credits to be arranged.

## THE SUMMER SESSION

First term begins June 10, 1953

Second term begins July 21, 1953

# The Summer Session Faculty



- ADAMS, EDWARD L., JR., Ph.D.; *Instructor in Education.*
- ANDERSON IMBERT, ENRIQUE, Dr. en F. y L.; *Visiting Professor of Spanish; University of Michigan.*
- AYCOCK, THOMAS MALCOLM, M.A.; *Professor of Physical Education.*
- BAKER, EDWARD W., Ph.D.; *Visiting Lecturer in Acarology; U. S. Department of Agriculture, Washington, D. C.*
- BARNES, ROBERT D., Ph.D.; *Instructor in Zoology.*
- BAUM, PAUL FRANKLIN, Ph.D.; *Professor of English.*
- BEACH, WALDO, Ph.D.; *Professor of Christian Ethics.*
- BERRY, EDWARD WILLARD, Ph.D.; *Professor of Geology.*
- BLACK, MARTIN L., JR., M.B.A., C.P.A.; *Professor of Accounting.*
- BLOMQUIST, HUGO LEANDER, Ph.D.; *Professor of Botany.*
- BOLMEIER, EDWARD CLAUDE, Ph.D.; *Professor of Education.*
- BOOKHOUT, CAZLYN GREEN, Ph.D.; *Associate Professor of Zoology.*
- BOWMAN, FRANCIS EZRA, Ph.D.; *Associate Professor of English.*
- BRADLEY, DAVID GILBERT, Ph.D.; *Assistant Professor of Religion.*
- BRADSHAW, CHARLES KILGO, Ph.D.; *Associate Professor of Chemistry.*
- BROWN, FRANCES CAMPBELL, Ph.D.; *Associate Professor of Chemistry.*
- CAMPBELL, OLEN KENNETH, M.A.; *Instructor in Education.*
- CARLITZ, LEONARD, Ph.D.; *Professor of Mathematics.*
- CARPENTER, DAVID WILLIAMS, Ph.D.; *Professor of Physics.*
- CARR, JOHN WINDER, JR., Ph.D.; *Professor of Education.*
- CARTER, ALLAN MURRAY, Ph.D.; *Assistant Professor of Economics.*
- CARTWRIGHT, WILLIAM H., Ph.D.; *Professor of Education.*
- CHAIKEN, LEON EDWARD, B.S., M.F.; *Associate Professor of Forest Management and Assistant Director of the Forest.*
- CLELAND, JAMES T., M.A., S.T.M., D.D.; *Professor of Preaching.*
- COILE, THEODORE STANLEY, Ph.D.; *Professor of Forest Soils.*
- COLTON, JOEL G., Ph.D.; *Assistant Professor of History.*
- CORDE, THOMAS HOWARD, Ph.D.; *Instructor in Romance Languages.*
- CRAWLEY, HATTIE MILDRED, R.N., B.S.; *Instructor in Nursing Arts.*
- DAVIS, GIFFORD, Ph.D.; *Associate Professor of Romance Languages.*
- DEWEY, DONALD, M.A.; *Assistant Professor of Economics.*
- DICKENS, ROBERT L., M.S., C.P.A.; *Assistant Professor of Accounting.*
- DRESSSEL, FRANCIS GEORGE, Ph.D.; *Professor of Mathematics.*
- ELLIOTT, WILLIAM WHITFIELD, Ph.D.; *Professor of Mathematics.*

- FEIN, JOHN MORTON, Ph.D.; *Assistant Professor of Romance Languages.*
- FERGUSON, ARTHUR BOWLES, Ph.D.; *Associate Professor of History.*
- FILER, ROBERT J., Ph.D.; *Assistant Professor of Psychology.*
- GARMEZY, NORMAN, Ph.D.; *Assistant Professor of Psychology.*
- GERGEN, JOHN JAY, Ph.D.; *Professor of Mathematics.*
- GILBERT, ALLAN H., Ph.D.; *Professor of English.*
- GIRARD, RENE NOEL, Ph.D.; *Instructor in Romance Languages.*
- GRANT, RICHARD BABSON, Ph.D.; *Instructor in Romance Languages.*
- GRAY, IRVING EMERY, Ph.D.; *Professor of Zoology.*
- HALLOWELL, JOHN HAMILTON, Ph.D.; *Professor of Political Science.*
- HAMILTON, WILLIAM BASKERVILLE, JR., Ph.D.; *Professor of History.*
- HANSON, EARL THOMAS, Ph.D.; *Assistant Professor of Political Science.*
- HART, HORNE LL NORRIS, Ph.D.; *Professor of Sociology.*
- HORN, EDWARD C., Ph.D.; *Assistant Professor of Zoology.*
- INGLES, THELMA, R.N., M.A.; *Assistant Professor of Nursing Education and Director, Division of Nursing Education*
- JOERG, FREDERICK CHARLES, M.B.A.; *Associate Professor of Economics.*
- JOHNSTON, DOROTHY F., R.N., B.S., C.P.H.N., M.Ed.; *Assistant Professor of Nursing Education.*
- JOHNSTON, FRONTIS W., Ph.D.; *Visiting Professor of History; Davidson College.*
- JORDAN, ARCHIBALD CURRIE, M.A.; *Assistant Professor of English.*
- KALE, WILLIAM ARTHUR, B.D., D.D.; *Professor of Practical Theology.*
- KIMBLE, GREGORY, Ph.D.; *Associate Professor of Psychology.*
- LANDON, CHARLES EARL, Ph.D.; *Associate Professor of Economics.*
- LEMERT, BENJAMIN FRANKLIN, Ph.D.; *Associate Professor of Economics.*
- LUEDECKE, AMANDA, R.N., B.S.; *Instructor in Psychiatric Nursing.*
- MCKENZIE, LIONEL WILFRED, JR., M.A., B.Litt.; *Assistant Professor of Economics.*
- McLENDON, JONATHON C., Ph.D.; *Assistant Professor of Education.*
- MARKMAN, SIDNEY DAVID, Ph.D.; *Associate Professor of Art History and Archaeology.*
- MASSEY, LUCY ETHELYN, R.N., M.A.; *Assistant Professor of Public Health Nursing.*
- MAXWELL, WILLIAM CARY, Ph.D.; *Associate Professor of German.*
- MONTFORT, ROBERT JOHN, B.A.; *Assistant Professor of Physical Education.*
- MYERS, HIRAM EARL, S.T.M., D.D.; *Professor of Biblical Literature.*
- NIXON, HERMAN C., Ph.D.; *Visiting Lecturer in Political Science; Vanderbilt University.*
- PERRY, EDMUND FRANKLIN, Ph.D.; *Instructor in Religion.*
- PETTY, OLAN LEE, Ph.D.; *Assistant Professor of Education.*
- PREDMORE, RICHARD LIONEL, D.M.L.; *Professor of Romance Languages.*
- PRICE, JAMES LIGON, JR., Ph.D.; *Assistant Professor of Religion.*
- PRITCHARD, A. EARL, Ph.D.; *Visiting Lecturer in Acarology; Division of Entomology and Parasitology, University of California, Berkeley.*
- PRITCHARD, D. W., Ph.D.; *Visiting Assistant Professor of Oceanography; Director, Chesapeake Bay Institute, The Johns Hopkins University.*

- RAPPAPORT, JOSEPHINE, R.N., B.S., M.A.; *Assistant Professor of Nursing Education.*
- ROBERTS, HENRY STOUTIE, JR., Ph.D.; *Associate Professor of Zoology.*
- ROBERTS, JOHN HENDERSON, Ph.D.; *Professor of Mathematics.*
- RODNICK, ELIOT H., Ph.D.; *Professor of Psychology.*
- ROPP, THEODORE, Ph.D.; *Associate Professor of History.*
- ROSE, JESSE LEE, Ph.D.; *Associate Professor of Latin and Greek.*
- RUDISILL, MABEL F., Ph.D.; *Associate Professor of Education.*
- SALES, REAMES HAWTHORNE, Ph.D.; *Instructor in Religion.*
- SANDERS, CHARLES RICHARD, Ph.D.; *Professor of English.*
- SAVILLE, MRS. EUGENIA CURTIS, M.A.; *Assistant Professor of Music.*
- SAVILLE, LLOYD BLACKSTONE, Ph.D.; *Associate Professor of Economics.*
- SAYLOR, JOHN HENRY, Ph.D.; *Professor of Chemistry.*
- SCHUTTLE, CLARENCE HENRY, Ph.D.; *Associate Professor of Sociology.*
- SCHUMACHER, FRANCIS XAVIER, B.S.; *Professor of Forestry.*
- SIMPSON, WILLIAM HAYS, Ph.D.; *Associate Professor of Political Science.*
- SMITH, GROVER C., JR., Ph.D.; *Instructor in English.*
- SMITH, HILRIE SHELTON, Ph.D., D.D., Litt.D.; *Professor of American Religious Thought.*
- SMITH, ROBERT SIDNEY, Ph.D.; *Professor of Economics.*
- SPENGLER, JOSEPH JOHN, Ph.D.; *Professor of Economics.*
- STINESPRING, WILLIAM FRANKLIN, Ph.D.; *Professor of Old Testament.*
- STOVALL, FLOYD, Ph.D.; *Visiting Professor of English; University of North Carolina.*
- STRANDTMANN, R. W., Ph.D.; *Visiting Lecturer in Acarology; Department of Biology Texas Technological College.*
- STROBEL, HOWARD AUSTIN, Ph.D.; *Assistant Professor of Chemistry.*
- STUMPF, WIPPERT ARNOT, Ph.D.; *Associate Professor of Education.*
- THOMAS, JOSEPH MILLER, Ph.D.; *Professor of Mathematics.*
- THOMPSON, EDGAR TRISTRAM, Ph.D.; *Professor of Sociology.*
- TORRE, ELIAS, M.A.; *Assistant Professor of Romance Languages.*
- TRUESDALE, JAMES NARDIN, Ph.D.; *Associate Professor of Greek.*
- TURNER, ARLIN, Ph.D.; *Visiting Professor of English; Louisiana State University.*
- VERBERG, F. JOHN, Ph.D.; *Instructor in Zoology.*
- WALTER, JAMIE ELIAS, I.A.; *Instructor of Economics.*
- WARD, CHARLES EUGENE, Ph.D.; *Professor of English.*
- WATSON, RICHARD L., JR., Ph.D.; *Associate Professor of History.*
- WEITZ, HENRY, Ed.D.; *Associate Professor of Education.*
- WELSH, PAUL, Ph.D.; *Assistant Professor of Philosophy.*
- WETHINGTON, LEWIS ELBERT, Ph.D.; *Assistant Professor of Religion.*
- WHARTON, GEORGE WILLARD, JR., Ph.D.; *Associate Professor of Zoology.*
- WHITRIDGE, MRS. EUGENIA REMELIN, Ph.D.; *Assistant Professor of Sociology.*
- WILDER, PELHAM, JR., Ph.D.; *Assistant Professor of Chemistry.*
- WILSON, FRIDERICK ELIPHAZ, A. M.; *Associate Professor of German.*
- WITHERS, LOREN RALPH, M.S.; *Assistant Professor of Music.*
- ZENER, KARL EDWARD, Ph.D.; *Professor of Psychology.*
- ZUKOWSKI, HALINE, R.N., B.S., M.L.; *Assistant Professor of Psychiatric Nursing.*



# Admission



THE general requirement for admission to the Summer Session is graduation from an accredited secondary school or its equivalent. Rejection of a student's application for admission to one of the University's Colleges or Schools does not preclude admission of that student to the Summer Session as a special or unclassified student.

Admission to specific courses offered in the Summer Session is governed by the student's academic status (freshman, sophomore, junior, senior, graduate, special or unclassified) and by the pre-requisites of the course in question.

## *Students in Residence at Duke University during the Spring Semester 1953*

A Duke University student, either graduate or undergraduate, who plans to attend the Summer Session should enroll with the dean of his college or school.

## *Students Not in Residence at Duke University during the Spring Semester 1953*

**UNDERGRADUATES.** New students seeking to enter Duke University as freshmen or as undergraduates with advanced standing, and undergraduates who wish to re-enter the University should write the Admissions Office. Men will address their application to the Director of Admissions, Trinity College and the College of Engineering; women will address their application to the Director of Admissions, The Woman's College.

Undergraduates, both men and women, enrolled in other colleges and universities who desire to earn in the Duke University Summer Session credits which are to be transferred to their own institutions should apply directly to the Director of the Summer Session, Duke University, on the application form at the end of this *Bulletin*. They should give accurately and clearly all information called for on the application form.

**GRADUATES.** Students with graduate standing and teachers in service with or without the Bachelor's degree who wish to earn credits

toward the renewal or the advancement of their certificate and who do not wish to become candidates for a degree at Duke University should apply to the Director of the Summer Session on the application form at the end of this *Bulletin*.

Graduate students who are seeking admission to the Graduate School of Arts and Sciences and those who have been admitted to the Graduate School must apply to the Director of the Summer Session on the application form at the end of this *Bulletin*. Those who are seeking admission to the Graduate School *must also file* Graduate School application forms which may be secured by writing to the Dean of the Graduate School, Duke University, Durham, North Carolina.

### *Admission to Degree Candidacy*

Credits earned during the Summer Session may be applied toward the requirements of a degree.

UNDERGRADUATES. A student seeking to enroll as a candidate for the Bachelor's degree from one of the colleges of Duke University must meet the entrance requirements set forth in the *Bulletin of Undergraduate Instruction*. This *Bulletin* may be secured by writing the Director of Admissions, Trinity College and the College of Engineering, or the Director of Admissions, The Woman's College, Duke University.

GRADUATES. A student seeking to enroll as a candidate for one of the advanced degrees offered by the Graduate School of Arts and Sciences of Duke University must meet the requirements.

### *Admission of Veterans*

All veterans who plan to attend Duke University during the Summer Session of 1953 and who expect to receive benefits under the so-called G.I. Bill of Rights should write directly and promptly for instructions to the Duke University Veterans' Office. This should be done as soon as the veteran is reasonably certain he will attend the Summer Session. Letters should be addressed to: The Veterans' Office, Administration Building, Duke University, Durham, North Carolina.

# Financial Information, Living Accommodations, and Medical Care



## *Fees*

### The University Fee:

Covering registration, tuition, and medical care.....	\$12.00 per semester hour
Teachers in full-time service in Elementary and Secondary Schools.....	6.00 per semester hour
Registered Nurses enrolled in Nursing Education courses	6.00 per semester hour

### Laboratory Fees: (These where applicable are in addition to the University Fee.)

The School of Spanish Studies.....	\$15.00
Marine Laboratory .....	10.00
Applied Music—Piano. Instruction 12 half-hour lessons.....	36.00
Practice facilities, if used.....	6.00

### Fees Replacing University Fee:

Medical Mycology .....	\$50.00
Conference for Teachers of Science and Mathematics.....	8.00
Sewage Works Operators School.....	6.50

### Master's Degree Summer Session Fee:

Candidates for the Master's degree who do 15 hours or less of the program in Summer Sessions and who complete the thesis and/or take the final examination in the Summer Session pay a degree fee of....	\$12.50
When more than 15 hours is taken in Summer Sessions and final examination is taken through the Office of the Summer Session, the degree fee is .....	\$25.00

### Auditing Fees:

1. Students registered for a full course program may audit non-laboratory courses (with the permission of the Director) at no extra charge.
2. Students carrying less than a full course program may be granted permission to audit a course or courses on payment of half the University fee per semester hour audited.....\$ 6.00 per s.h.

### Late Registration Fee:

Students who fail to register prior to the first class day of a given course will pay an extra fee of.....	5.00
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### Fee for Course Changes:

Course changes other than those required by the University will be made only on payment of an extra fee of.....	1.00
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Fee for Make-up Final Examination:.....	3.00
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### Refund of Fees:

- a. When applications for withdrawal are received by the Director of the Summer Session before the close of registration on registration day, full fees will be refunded.
- b. When applications for withdrawal are received by the Director of the Summer Session during the first four class days of a given term 80 per cent of the fees will be refunded.
- c. When applications for withdrawal are received by the Director of the Summer Session after the fourth class day there will be no refund of fees.

## *Student Aid*

For information concerning loans and scholarships see the *Bulletin of the Summer Session*.

## *Dormitory Accommodations*

The dormitory facilities of Duke University West Campus will be used for the 1953 Summer Session except in the case of the Marine Laboratory. Food service will be cafeteria style. For more complete information, see the *Bulletin of the Summer Session*.

### Estimated Cost of a Six-Week Term:

University Fee, 6 s.h.....	\$ 72.00
Teachers (elementary and secondary) in full-time service, and Registered Nurses in nursing education courses, \$36.00	
Dormitory Rooms (2 occupants, \$21.00 per person) .....	21.00
Meals (Cafeteria selective: high average \$75.00, low average \$60.00) .....	67.50
Books and Class Materials \$7.00 to \$10.00.....	8.50
Miscellaneous (laundry, etc.) .....	12.00
Total (elementary and secondary teachers in full-time service and Registered Nurses in nursing education courses deduct \$36.00) .	.....\$181.00

# Registration



**C**LASSES BEGINNING JUNE 11. All Summer Session students whose classes begin on June 11, Term I, who *do not* complete registration in the Summer Session Office, 104 Page Building, on or before June 6 *must* present themselves at general registration in the large gymnasium on June 10 to register.

**CLASSES BEGINNING JUNE 16.** All Summer Session students whose classes begin on June 16, Term I, who *do not* complete registration in the Summer Session Office on or before June 13 must register in the Summer Session Office, 104 Page Building, on June 15.

**CLASSES BEGINNING JUNE 23.** All Summer Session students whose classes begin on June 23, Term I, who *do not* complete registration in the Summer Session Office on or before June 20 must register in the Summer Session Office, 104 Page Building, on June 22.

**CLASSES BEGINNING JUNE 30.** All Summer Session students whose classes begin on June 30, Term I, who *do not* complete registration in the Summer Session Office on or before June 27 must register in the Summer Session Office, 104 Page Building, on June 29.

**CLASSES BEGINNING JULY 22.** All Summer Session students who wish to register for courses offered during Term II or for research during Term II may register in the Summer Session Office on July 7 through July 16. All students who *do not* register for second term during this period *must* register in the Summer Session Office, 104 Page Building, on July 21.

**CLASSES BEGINNING ON OTHER DATES.** All Summer Session students registering for courses beginning on dates other than those specified above must complete registration in the Summer Session Office *before* the date on which their classes begin. *Registration on the day on which classes are scheduled to begin will be considered late registration.*



# Resources of the University



## *Libraries and Research Facilities*

Summer Session students have access to the General Library and the various school and departmental libraries with their large and significant special collections. Science laboratories, equipped for general and special research, are available. For a more detailed description see the *Bulletin of the Summer Session*.

## *Special Conferences and Institutes*

The Summer Session sponsors special conferences and institutes such as the School of Spanish Studies, the Laboratory Conference for Teachers of Science and Mathematics, the Institute of the North Carolina English Teachers Association, and the School for Accepted Supply Pastors. For further information see the *Bulletin of the Summer Session*.

## *Post-Doctoral Research*

Scholars engaged in post-doctoral research find it advantageous and sometimes essential to use in summer the resources of the Duke University libraries. The University welcomes these visitors, and makes available to them the living accommodations of the dormitories and the dining halls during the Summer Session, June 10 to August 28. Application for these post-doctoral research privileges must be made in advance by letter to the Director of the Summer Session, giving the applicant's present position, the specific field of his research interest, and the dates during which he desires to be in residence. Approved applicants will be accepted subject to the availability of library and of dormitory space.

# Graduate Study in the Summer Session



A STUDENT who wishes to work toward the A.M., M.Ed., Ph.D., or Ed.D. degree must apply for admission to the Graduate School of Arts and Sciences. Only those students who have been officially admitted to the Graduate School will be required to register in the Graduate School. It is quite appropriate for a student who holds a bachelor's degree and who desires only professional credit to apply directly to the Director of the Summer Session for admission as a special or unclassified student. It should be understood, however, that the credit earned while the student is so listed is not credit toward an advanced degree in the Graduate School of Arts and Sciences. Students who look forward to taking an advanced degree by work in the Summer Sessions should make sure that all of their documents necessary for admission to the Graduate School (see below) have been forwarded to the Dean of that School.

To make formal application the student should address the Dean of the Graduate School, Duke University, requesting official application blanks. These should be filled out fully and returned at the earliest moment. The other documents needed to complete the application, namely, transcripts, letters of recommendation, and Graduate Record Examination scores for applicants in the departments of Economics, Psychology, and English, must be forwarded directly from the institutions or individuals to the Dean of the Graduate School. In no case will such documents be accepted directly from the student.

In order that application to the Graduate School for summer work be given due consideration, the student should submit all of his documents to the Dean of the Graduate School by June 1 before the first term, and by July 10 before the second term of the Summer Session. It would be difficult to give applications received after these dates the same attention given those received earlier. After the application is accepted and approved, the student will receive a letter of admission to the Graduate School.

## *Registration of Graduate Students*

Students who have received a letter of admission to the Graduate School from the Director of Admissions of the Graduate School should present themselves for registration at the official registration period,

June 10 for the first term, and July 21 for the second term. The student should remember that his registration with the Summer Session is not equivalent to registration in the Graduate School, and he should be sure to present himself for official registration in the Graduate School, so that his course work can be credited to his program leading to a degree. Students who have not been granted admission to the Graduate School, of course, do not register in the Graduate School.

### *Course Work Leading to Degree*

Graduate students who wish to work toward advanced degrees in the Summer Session, particularly in Chemistry, Economics, Education, English, History, Mathematics, Religion, Sociology, Spanish, and Zoology, will find a selection of courses offered by members of the Duke faculty and by visiting professors. Other departments ordinarily offering sequences of work leading to the Master of Arts degree in a series of summer terms are Botany, Political Science, and Psychology.

### *The Ph.D. and Ed.D. Degrees*

**STUDY FOR THE PH.D. DEGREE:** Students who are interested in working toward a Ph.D. degree should consult the detailed requirements as outlined in the *Bulletin* of the Duke University Graduate School of Arts and Sciences. Of the three years required as minimum residence, not more than one year can be earned in Summer Sessions. Full-time enrollment for one six-week term is counted as one-fifth of an academic year.

**STUDY FOR THE ED.D. DEGREE:** Students who are interested in working toward an Ed.D. degree should consult the detailed statement in the *Bulletin* of the Graduate School of Arts and Sciences. In general, the same requirements for residence are maintained for the Ed.D. degree as for the Ph.D. For specific information regarding programs for the Ed.D. degree, please write to the Director of Graduate Studies, Department of Education.

### *Requirements for the Master of Arts Degree*

**LANGUAGE REQUIREMENTS:** The candidate for the A.M. degree must have a reading knowledge of at least one foreign language. (The several departments reserve the right to specify which foreign languages are acceptable.) Evidence of such knowledge may be furnished in either of two ways: (1) by successfully passing an examination, officially conducted by the appropriate foreign language depart-

ment at Duke University, or (2) by a transcript showing the completion of the third college year of one language, or the second college year of each of two acceptable foreign languages.

If the student must take the examination to satisfy this requirement, he may request—should he feel well qualified—the language examination required of candidates for the Ph.D. degree. By passing this examination, he may satisfy the requirements for both degrees at one time.

**MAJOR SUBJECT:** As a prerequisite to graduate study in his major subject, the student must have completed a *minimum* of 12 semester hours of approved college courses in that subject, and 12 additional semester hours in that subject or in related work. Since some departments require more than 12 semester hours, the student should read carefully the special requirements listed by his major department, which are included as headnotes to the course offerings in the *Bulletin* of the Graduate School.

In his graduate work, the student, in order to complete the course requirements for the A.M. degree, must present acceptable marks for 24 semester hours of graduate courses. In addition to these he must present a thesis, which carries a credit of 6 semester hours. Thus, his earned credit for the degree totals 30 semester hours.

**MINOR SUBJECT:** Beyond the work for his major, the student must take a minimum of 6 semester hours in a minor department, the department of the minor to be approved by his major department. The remaining 6 semester hours of the necessary 24 may be taken in either of these departments, or in another approved by the major department and by the Graduate School Council.

**TRANSFER OF CREDITS:** Under certain circumstances a maximum credit of 6 semester hours may be allowed for graduate courses completed elsewhere. The acceptance of credit up to this amount, however, will not reduce the minimum period of full-time registered residence at Duke University. In no case will credit be allowed for extension or correspondence courses.

With the approval both of the student's major department and the Dean of the Graduate School, a student who is granted such transfer credit may be permitted to register for as much as 12 semester hours of thesis research instead of the usual 6 semester hours. Or he may be permitted to fill out his schedule with as much as 6 semester hours of further undergraduate training or 6 semester hours of required language courses on the undergraduate level.

**CANDIDACY FOR THE MASTER OF ARTS DEGREE:** After a student who has been officially admitted to the Graduate School has successfully completed 12 semester hours of graduate course work, he may apply for candidacy for the A.M. degree. Two conditions must

have been met: (1) he must have passed all of his course work with at least 3 semester hours of "G" (good) grade or better; and (2) he must present to the Dean of the Graduate School an endorsement of his candidacy by the Director of Graduate Studies in his major department.

**TIME LIMITS FOR COMPLETION OF THE MASTER OF ARTS DEGREE:** The candidate for the A.M. degree must complete all of his course requirements and the thesis within a period of six calendar years from the date of his initial registration. Credits earned over a longer period of time cannot be credited toward a degree.

The student who expects to complete all requirements for the A.M. degree in the Summer Session must file with the Dean of the Graduate School, during the first week of the term when he expects to complete the work, a statement of his intention.

**THE THESIS FOR THE MASTER OF ARTS DEGREE:** The thesis for the A.M. degree should demonstrate the student's ability to collect, arrange, interpret, or report pertinent material on his special research problem. Although a publishable document is not required, the thesis must be written in a literate style, and should exhibit the student's competence in scholarly methods and procedures.

**REGULATIONS AND PROCEDURES:** On or before July 1 of the summer in which it is expected the degree will be conferred, the student must file with the Dean of the Graduate School, on the official blank provided for that purpose, the final title of the thesis.

Four bound, typewritten copies of the thesis must be submitted, in approved form, to the Dean of the Graduate School at least one week before the date of the thesis examination. The copies will then be distributed to the several members of the examining committee.

**THE EXAMINING COMMITTEE AND THE EXAMINATION:** After consultation with the professor who has directed the thesis, the Dean of the Graduate School appoints an examining committee composed of the director of the thesis and two other members of the Graduate Faculty. The candidate appears before this committee for examination, which usually is restricted to the thesis and to the major field, and lasts for about one and one-half hours.

If the candidate successfully stands his examination, the examining committee certifies to his passing by signing the title page of the thesis. The candidate then returns the original and one carbon copy of the thesis to the Dean of the Graduate School, who deposits them in the University Library.

### *Requirements for the Master of Education Degree*

**PREREQUISITES:** The degree of Master of Education is granted ordinarily only to teachers or to others engaged in educational work.



Before a student is admitted to graduate study for this degree, he should have completed, on the undergraduate level, a minimum of 18 semester hours of approved work in Education, including courses in Educational Psychology, and courses in the History of Education, Educational Sociology, or School Administration.

Early in the program of his work, the student must pass successfully two examinations: (1) a test of general ability, and (2) a test designed to determine his ability to write acceptable English. The student, before the degree is conferred, must also present evidence testifying to at least two years of teaching experience, gained either before his admission to course work, or concurrently with it.

**REQUIREMENTS FOR THE DEGREE:** The M.Ed. degree may be earned either with or without the presentation of a thesis.

**WITHOUT THESIS:** Students who elect this plan must present a total of 30 semester hours. Twelve hours of this required work must include the *four* basic courses: Education 204, 210, 217, and 235. If a student, by examination, can demonstrate his competency in the subject matter of two of these courses, he may be granted exemption from the required work in these courses. In no case may he claim exemption for more than two.

Other requirements are: a departmental major (i.e., in Nursing Education, Elementary Education, Public School Administration, Public School Supervision, or Secondary Education) of at least 12 semester hours, and a minor of at least 6 semester hours in a department other than Education. Toward the end of his residence the student must pass a comprehensive examination on his departmental major and on the content of the four basic courses. Permission to take such examinations must be obtained from the Director of Graduate Studies of the Department of Education, and a notice of intention must be filed with him at least three weeks before the announced dates of the examinations.

**WITH THESIS:** Students who elect this plan are permitted to substitute a thesis for 6 semester hours of the required course work. The first 12 semester hours must be passed with a grade of "G" (good) on at least 6 semester hours, and with no grade below an "S." The student must also present a thesis subject approved by the Professor of Education who intends to direct it, and by two other members of the staff in Education, including the Director of Graduate Studies. Two of the three members of the approving committee must be permanent members of the Duke University Graduate Faculty. The title of the thesis must be filed with the Dean of the Graduate School at the same time as the titles for the A.M. theses.

In addition to the thesis, the student must present 24 semester hours of course credit. Of these, 6 semester hours must be earned

in *two* of the basic courses in the Department; Education 204, 210, 217, or 235. Of the remaining 18 semester hours, 6 semester hours must constitute a minor taken outside of the Department of Education; at least 12 semester hours must be taken in the student's departmental major.

The regulations regarding submission of typed copies of the thesis and the thesis examination are the same as those for the A.M. degree.

#### CANDIDACY FOR THE MASTER OF EDUCATION DEGREE:

After a student who has been officially admitted to the Graduate School has successfully completed 12 semester hours of graduate course work, he may apply for candidacy for the M.Ed. degree. Two conditions must have been met: (1) he must have passed all of his course work with at least 3 semester hours of "G" (good) grade or better; and (2) he must present to the Dean of the Graduate School an endorsement of his candidacy by the Director of Graduate Studies in his major department.

**TIME LIMITS FOR COMPLETION OF THE MASTER OF EDUCATION DEGREE:** The candidate for the M.Ed. degree must complete all of his course requirements and the thesis within a period of six calendar years from the date of his initial registration. Credits earned over a longer period of time cannot be credited toward a degree.

The student who expects to complete all requirements for the M.Ed. degree in the Summer Session must file with the Dean of the Graduate School, during the first week of the term when he expects to complete the work, a statement of his intention.

# Divinity School Studies



**BACHELOR OF DIVINITY AND MASTER OF RELIGIOUS EDUCATION:** The degrees of Bachelor of Divinity and Master of Religious Education are administered by the faculty of the Divinity School. A limited number of courses carrying credits toward these degrees is listed in this *Bulletin* under the heading of Religion. Persons desiring credit toward either of these degrees must be regularly admitted to the Divinity School, and all courses listed for Divinity School credit must be registered and approved in the office of the Divinity School. This school publishes its own Summer Session Bulletin, a copy of which may be secured by addressing The Office of the Dean, The Divinity School, Duke Station, Durham, N. C.

## Undergraduate Study



**UNDERGRADUATES** in Duke University who desire to accelerate their programs may complete the work for a degree in three years by attending two and one-half summer sessions.

Undergraduates from other colleges and universities may enroll for summer instruction at Duke and transfer their earned credits to their own institutions. By attending both terms of the Summer Session it is possible for a student to earn as many as twelve semester hours of credit. Instruction of interest to undergraduates will be offered in the summer of 1953 in most of the departments and colleges.

# Courses of Instruction



## *Minimum Enrollment Required for Courses*

ALL courses are offered subject to minimum enrollments. The University reserves the right to withdraw undergraduate courses in which fewer than twelve students enroll, senior-graduate courses numbered 200-299 in which fewer than ten students enroll, and graduate courses and seminars numbered 300 or above in which fewer than six students enroll. In withdrawing a course, the University attempts to avoid undue hardships on students. Sometimes, therefore, courses are offered in spite of small enrollments. Courses not listed will be given when a demand develops and an instructor is available.

## *Department Officers and Regulations*

Departments offering Summer Session programs are listed alphabetically. Under each department is given the name of the chairman and the name of the director of graduate studies. Where departments have set up special regulations for admission to candidacy for the Master's degree, these are included.

### AESTHETICS, ART, AND MUSIC

PROFESSOR EARL MUELLER, CHAIRMAN OF THE EXECUTIVE COMMITTEE  
100 ASBURY (EAST CAMPUS)

#### FIRST TERM

S47A, S97A, S147A, S197A. APPLIED MUSIC—PIANO.—1 s.h.	MR. WITHERS
S51. HISTORY OF ART: ART AND CULTURE IN THE WESTERN WORLD.—3 s.h.	MR. MARKMAN
S52. HISTORY OF ART: ART AND CULTURE IN THE WESTERN WORLD.—3 s.h.	MR. MARKMAN
S151. PUBLIC SCHOOL MUSIC EDUCATION.—3 s.h.	MRS. SAVILLE
S165. OPERA.—3 s.h.	MRS. SAVILLE

### AIR SCIENCE

COLONEL ROBERT J. KNIGHT, JR., CHAIRMAN  
115 SOCIAL SCIENCE BUILDING (WEST CAMPUS)

AS 51-52. APPLIED AIR POWER AND ELEMENTARY AIR FORCE ADMINISTRATION.—Prerequisite: AS 1-2 or equivalent.

## BOTANY

PROFESSOR HUGO L. BLOMQUIST, CHAIRMAN—203 BIOLOGY BUILDING (WEST CAMPUS);  
 PROFESSOR PAUL J. KRAMER, DIRECTOR OF GRADUATE STUDIES—  
 04 BIOLOGY BUILDING (WEST CAMPUS)

For admission to candidacy for the Master's degree in Botany, students must have completed a minimum of eighteen semester hours of biological science, including six semester hours of botany in courses numbered above 100. Students who have not yet had the minimum eighteen hours, however, may enter higher courses by permission of the instructor, if he is convinced that they can carry the work for undergraduate credit, and may count such work toward the eighteen hours necessary for candidacy.

## FIRST TERM

S225. SPECIAL PROBLEMS.—Hours to be arranged. STAFF

S359. RESEARCH.—Hours to be arranged. STAFF

## SECOND TERM

S225. SPECIAL PROBLEMS.—Hours to be arranged. STAFF

S359. RESEARCH.—Hours to be arranged. STAFF

## SECOND TERM (Marine Laboratory at Beaufort, North Carolina)

S212. COASTAL AQUATIC VEGETATION.—Prerequisites, one year of botany or equivalent. 6 s.h. MR. BLOMQUIST

S359. RESEARCH.—Hours to be arranged. MR. BLOMQUIST

## CHEMISTRY

PROFESSOR MARCUS E. HOBBS, CHAIRMAN—022 CHEMISTRY BUILDING (WEST CAMPUS);  
 PROFESSOR WARREN C. VOSEBURGH, DIRECTOR OF GRADUATE STUDIES—  
 211 CHEMISTRY BUILDING (WEST CAMPUS)

All first term courses in the Department of Chemistry will begin on June 23 and continue through July 18. All second term courses will begin on July 21 and continue through August 15. A course in chemistry constitutes a student's full program and occupies his entire time during each school day.

## FIRST TERM

S1. GENERAL INORGANIC CHEMISTRY.—4 s.h. MR. STROBEL

S61.—FUNDAMENTALS OF ANALYTICAL CHEMISTRY.—Prerequisites: Chemistry 1-2 and Mathematics 6 or equivalent. 4 s.h. MR. SAYLOR

S151.—ORGANIC CHEMISTRY.—Prerequisite: Chemistry S61. 4 s.h. MR. BRADSHAW

S275. THESIS RESEARCH.—2 to 8 s.h. STAFF

## SECOND TERM

S2. GENERAL INORGANIC CHEMISTRY.—4 s.h. MR. WILDER

S152. ORGANIC CHEMISTRY.—Prerequisite: Chemistry S151. 4 s.h. MISS BROWN

## ECONOMICS

PROFESSOR CALVIN B. HOOVER, CHAIRMAN; PROFESSOR FRANK T. DE VYVER, EXECUTIVE  
 OFFICER OF THE DEPARTMENT—203H SOCIAL SCIENCE BUILDING (WEST CAMPUS);  
 PROFESSOR JOSEPH J. SPENGLER, DIRECTOR OF GRADUATE STUDIES—322  
 LIBRARY BUILDING (WEST CAMPUS)

## FIRST TERM

S51. PRINCIPLES OF ECONOMICS.—3 s.h. MR. DEWEY



S57. PRINCIPLES OF ACCOUNTING.—3 s.h.	MR. BLACK
S58. PRINCIPLES OF ACCOUNTING.—3 s.h.	MR. BLACK
S115. ECONOMIC GEOGRAPHY: TEACHERS' COURSE.—3 s.h.	MR. LEMERT
S118. ECONOMIC GEOGRAPHY OF THE SOUTH.—3 s.h.	MR. LEMERT
S138. BUSINESS STATISTICS.—Prerequisite: Mathematics 5 or the equivalent. 3 s.h.	MR. SAVILLE
S153. MONEY, CREDIT AND BANKING.—3 s.h.	MR. SAVILLE
S155. LABOR PROBLEMS.—3 s.h.	MR. CARTIER
S171. ADVANCED ACCOUNTING.—3 s.h.	MR. DICKENS
S172. ADVANCED ACCOUNTING.—3 s.h.	MR. DICKENS
S189. BUSINESS AND GOVERNMENT.—3 s.h.	MR. DEWEY
S219. ECONOMIC PROBLEMS OF UNDER-DEVELOPED AREAS.—3 s.h.	MR. SPENGLER
S257. DYNAMICS OF THE LABOR MOVEMENT.—3 s.h.	MR. CARTIER
S318X. THESIS SEMINAR.—Hours to be arranged.	MR. SPENGLER

## SECOND TERM

S52. PRINCIPLES OF ECONOMICS.—3 s.h.	MR. MCKENZIE
S60. ACCOUNTING.—3 s.h.	MR. MCKENZIE
S103. TRANSPORTATION.—3 s.h.	MR. LANDON
S105. INDUSTRIAL MANAGEMENT.—3 s.h.	MR. LANDON AND MR. WALTER
S143. CORPORATION FINANCE.—3 s.h.	MR. JOERG
S144. INVESTMENTS.—Prerequisites: Economics 57-58 or 60, and 143. 3 s.h.	MR. JOERG
S188. PERSONNEL MANAGEMENT.—Prerequisite: Economics 155. 3 s.h.	MR. WALTER
S231. THE ECONOMIC HISTORY OF EUROPE.—3 s.h.	MR. SMITH
S232. THE ECONOMIC HISTORY OF THE UNITED STATES.—3 s.h.	MR. SMITH
S318X. THESIS SEMINAR.—Hours to be arranged.	MR. LANDON

## EDUCATION

PROFESSOR WILLIAM H. CARTWRIGHT, CHAIRMAN—1C WEST DUKE BUILDING (EAST CAMPUS);  
 PROFESSOR EDWARD C. BOLMEIER, DIRECTOR OF GRADUATE STUDIES—  
 1C WEST DUKE (EAST CAMPUS)

For admission to candidacy for the Master of Arts (A.M.) degree with major in Education, or for the Master of Education (M.Ed.) degree, students must, in addition to meeting the general requirements for admission to the Graduate School, meet the following specific requirements: Credit for (1) eighteen semester hours of acceptable prior work in Education and (2) twelve semester hours of acceptable prior work in a minor field. If Psychology, Sociology, Economics, or Political Science is chosen for the minor, six semester hours of work completed after entering the Junior year in college will be accepted.

The degree of Master of Arts is available in the divisions of Public School Administration, Public School Supervision, Secondary Education, Elementary Education and Educational Psychology. Every candidate for the Master of Arts degree in the Department should elect at least twelve semester hours in one of these divisions in which he plans to write his thesis and the remainder of his work, including the six semester hours in his minor, with the approval of the proper

division adviser. The degree of Master of Education is available in the divisions of Public School Administration, Public School Supervision, Secondary Education, and Elementary Education. Dr. Bolmeier and Dr. Stumpf are advisers to students in School Administration and in Supervision; Dr. Carr and Dr. Rudisill are advisers in Elementary Education; Dr. Bolmeier, Dr. Cartwright and Professor Childs are advisers in Secondary Education; and Dr. Easley is adviser in Educational Psychology. Candidates for the Master of Arts and Master of Education degree should read with special care the regulations of the Graduate School.

## FIRST TERM

S103. ORGANIZATION AND MANAGEMENT OF THE SCHOOL.—3 s.h.

MR. CAMPBELL

S118. EDUCATIONAL PSYCHOLOGY: PSYCHOLOGICAL DEVELOPMENT.

—Prerequisite: three semester hours in psychology or educational psychology. 3 s.h.

MR. ADAMS

S201. TEACHING AND SUPERVISION OF ARITHMETIC.—3 s.h. MR. PETTY

S203. PRINCIPLES OF SCHOOL ADMINISTRATION.—3 s.h. MR. BOLMEIER

S205. CURRICULUM PROBLEMS IN SECONDARY EDUCATION.—3 s.h.

MR. CARTWRIGHT

S211. THE PROBLEM CHILD (also Psychology S211).—3 s.h. MR. FILER

S217. THE PSYCHOLOGICAL PRINCIPLES OF EDUCATION.—3 s.h.

MR. WEITZ

S222. THE CURRICULUM AND MATERIALS OF THE ELEMENTARY GRADES.—3 s.h.

MR. CARR

S224. TEACHING THE SOCIAL STUDIES IN ELEMENTARY SCHOOLS.—3 s.h.

MR. CARTWRIGHT

S226. TEACHING READING IN THE ELEMENTARY SCHOOL.—3 s.h.

MISS RUDISILL

S234. SECONDARY SCHOOL ORGANIZATION AND ADMINISTRATION.—3 s.h.

MR. BOLMEIER

S235. THE NATURE, FUNCTION AND ORGANIZATION OF THE CURRICULUM.—3 s.h.

MR. CARR

S236. TEACHING READING IN THE SECONDARY SCHOOL.—3 s.h.

MISS RUDISILL

S255. GUIDANCE FUNCTIONS OF THE CLASSROOM TEACHER.—Prerequisites: twelve hours in either education, or psychology, or a combination of the two. 3 s.h.

MR. WEITZ

S267. THE TEACHING OF SCIENCE IN THE ELEMENTARY SCHOOL.—3 s.h.

VISITING PROFESSOR

S285. THE PREPARATION OF PROJECTED AND/OR RECORDED INSTRUCTIONAL AND PUBLIC RELATION MATERIAL.—3 s.h.

VISITING PROFESSOR

S290. ADMINISTRATION OF SCHOOL PROPERTY.—3 s.h. MR. STUMPF

Thesis research credits are offered in either term by those members of the graduate staff of Duke University who are in residence. For this seminar work either three or six semester hours of credits are given, depending upon the student's period of residence and the work accomplished. Hours are to be arranged by the students and professors concerned. Thesis seminars offered are as follows:

S300X. THESIS SEMINAR IN PUBLIC SCHOOL ADMINISTRATION.

S317X. THESIS SEMINAR IN EDUCATIONAL PSYCHOLOGY.

S334X. THESIS SEMINAR IN SECONDARY EDUCATION.

S337X. THESIS SEMINAR IN ELEMENTARY EDUCATION.

S372X. THESIS SEMINAR IN PUBLIC SCHOOL SUPERVISION.

## SECOND TERM

S84. SOCIAL FOUNDATIONS OF EDUCATION.—3 s.h.

MR. McLENDON

S88. EDUCATIONAL PSYCHOLOGY: LEARNING AND MEASUREMENT.—  
3 s.h. MR. PETTY

S204. THE SCHOOL AS AN INSTITUTION.—3 s.h.

MR. McLENDON

S210. INTRODUCTION TO EDUCATIONAL RESEARCH.—3 s.h.

MR. STUMPF

## NURSING EDUCATION

## A DIVISION OF THE DEPARTMENT OF EDUCATION

MISS THELMA INGLES, R.N., DIRECTOR OF THE DIVISION OF  
NURSING EDUCATION. HANES HOUSE

## FIRST TERM

S48N. SOCIAL FOUNDATIONS OF NURSING EDUCATION.—3 s.h.

MISS RAPPAPORT

S117N. COMMUNITY NURSING.—3 s.h.

MISS MASSEY

S120N.—NURSING EDUCATION: PROBLEMS IN NURSING CARE.—3 s.h.

MISS LUEDECKE, MISS ZUKOWSKI

S124N. NURSING EDUCATION: TEACHING OF NURSING ARTS.—3 s.h.

MISS CRAWLEY

S129N. THE PSYCHOLOGICAL ASPECTS OF NURSING CARE.—3 s.h.

MISS ZUKOWSKI

S136N. SEMINAR IN MEDICAL OR SURGICAL SPECIALITY.—3 s.h.

MISS INGLES

S193N. WARD ADMINISTRATION AND TEACHING.—3 s.h.

MISS INGLES

## SECOND TERM

S120N. NURSING EDUCATION: PROBLEMS IN NURSING CARE.—3 s.h.

MISS LUEDECKE, MISS ZUKOWSKI

S195N. PERSONNEL WORK IN SCHOOLS OF NURSING.—3 s.h.

MISS JOHNSTON

## ENGLISH

PROFESSOR WILLIAM H. IRVING, CHAIRMAN—2G-5 WEST DUKE BUILDING (EAST CAMPUS);

PROFESSOR PAUL F. BAUM, DIRECTOR OF GRADUATE STUDIES—

402 LIBRARY (WEST CAMPUS)

Candidates for the Master's degree in English are expected to have had at least twelve semester hours in undergraduate courses above the sophomore level. The Department may also require additional courses if the work of the student in his first term indicates inadequate preparation.

Master's candidates in English are required to elect S203. Those who have completed as many as twelve semester hours of graduate work should take also the bibliography course, S301, or its equivalent, at their earliest opportunity.

## FIRST TERM

S1. ENGLISH COMPOSITION.—3 s.h.

MR. JORDAN

S2. ENGLISH COMPOSITION.—3 s.h.

MR. JORDAN

S55. REPRESENTATIVE WRITERS.—3 s.h.

MR. SANDERS

S131. ENGLISH LITERATURE, 1832-1900.—3 s.h.	MR. SANDERS
S138. AMERICAN LITERATURE.—3 s.h.	MR. TURNER
S233. AMERICAN LITERATURE SINCE 1870.—3 s.h.	MR. TURNER
S237. ENGLISH DRAMA, 1642-1800.—3 s.h.	MR. WARD
S239. SHAKESPEARE.—3 s.h.	MR. GILBERT
S251. ENGLISH LITERATURE IN THE SEVENTEENTH CENTURY.—3 s.h.	MR. WARD
S349X. SEMINAR IN ENGLISH LITERATURE.—Credits to be arranged.	MR. BAUM

## SECOND TERM

S2. ENGLISH COMPOSITION.—3 s.h.	MR. SMITH
S56. REPRESENTATIVE WRITERS.—3 s.h.	MR. BOWMAN
S124. SHAKESPEARE.—3 s.h.	MR. BOWMAN
S158. CONTEMPORARY FICTION.—3 s.h.	MR. SMITH
S244. WORDSWORTH.—3 s.h.	MR. STOVALL
S256. THE AMERICAN NOVEL 1890-1940.—3 s.h.	MR. STOVALL
S350X. SEMINAR IN ENGLISH LITERATURE.—Credits to be arranged.	MR. GILBERT

## FORESTRY

PROFESSOR CLARENCE F. KORSTIAN, DEAN OF THE SCHOOL OF FORESTRY AND DIRECTOR OF GRADUATE STUDIES—308 SOCIAL SCIENCE BUILDING

Organized course work in the School of Forestry during the Summer Session is limited to plane surveying, forest surveying, and forest mensuration which are required of all students entering upon two years of study in technical forestry leading to the degree of Master of Forestry (M.F.).

Qualified students may engage in thesis research in certain branches of forestry during the Summer Session with the approval of the instructor concerned and the Dean of the School of Forestry or of the Director of Graduate Studies in the case of work taken through the Graduate School.

C.E. S110. PLANE SURVEYING.—Prerequisites: G.E. 1 and trigonometry. 4 s.h.

S150. FOREST SURVEYING.—Prerequisites: Civil Engineering S110 Plane Surveying, or equivalent. 5 s.h.

MR. CHAIKEN

S151. FOREST MENSURATION.—4 s.h.

MR. SCHUMACHER

S261A. FOREST SOILS.—Prerequisites: Chemistry 1 and 2, and Physics 1 or equivalents; physical geology, mineralogy, petrology and analytical chemistry are also desirable. 2 s.h.

MR. COILE

S357. RESEARCH IN FORESTRY.—Credits to be arranged.

STAFF

## FRENCH

PROFESSOR B. R. JORDAN, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES OF THE DEPARTMENT OF ROMANCE LANGUAGES—214 CARR BUILDING  
(EAST CAMPUS)

## FIRST TERM

S1. ELEMENTARY FRENCH.—3 s.h.

MR. GRANT

S2. ELEMENTARY FRENCH.—3 s.h.

MR. GRANT

NOTE: A student enrolled in French S2 must also attend French S1, unless French 1 has been taken during Spring Semester 1953.

S3. INTERMEDIATE FRENCH.—Prerequisite: French 1-2, or two units of high school French. 3 s.h. MR. CORDLE

S4. INTERMEDIATE FRENCH.—Prerequisite: French 3 or equivalent. 3 s.h. MR. GIRARD

S51. INTRODUCTION TO FRENCH LITERATURE.—Prerequisite: French 3-4, or equivalent. 3 s.h. MR. GIRARD

S52. INTRODUCTION TO FRENCH LITERATURE.—Prerequisite: French 51, or equivalent. 3 s.h. MR. CORDLE

## GEOLOGY

PROFESSOR E. WILLARD BERRY, CHAIRMAN—019 SCIENCE (E)

### FIRST TERM

S51. GENERAL GEOLOGY.—4 s.h. MR. BERRY

### SECOND TERM

S52. GENERAL GEOLOGY.—4 s.h. MR. BERRY

## GERMAN

PROFESSOR CLEMENT VOLLMER, CHAIRMAN—106A SOCIAL SCIENCE BUILDING  
(WEST CAMPUS)

### FIRST TERM

S1. ELEMENTARY GERMAN.—3 s.h. MR. MAXWELL

S2. ELEMENTARY GERMAN.—3 s.h. MR. MAXWELL

NOTE: A student enrolled in German S2 must also attend German S1, unless German 1 has been taken during Spring Semester 1953.

S3. INTERMEDIATE GERMAN.—3 s.h. MR. WILSON

S4. INTERMEDIATE GERMAN.—Prerequisite: German S3. 3 s.h. MR. WILSON

## GREEK

ASSOCIATE PROFESSOR JAMES N. TRUESDALE, CHAIRMAN—303 GRAY (WEST CAMPUS)

### FIRST TERM

S121. GREEK LITERATURE: HOMER.—*Iliad and Odyssey*.

MR. TRUESDALE AND MR. ROSE

S121.1. 3 s.h.

S121.2. 3 s.h.

S122. GREEK LITERATURE: THE TRAGIC POETS.—3 s.h.

MR. TRUESDALE

## HEALTH AND PHYSICAL EDUCATION

E. M. CAMERON, DIRECTOR, TRINITY COLLEGE AND COLLEGE OF ENGINEERING—  
109 GYMNASIUM (WEST CAMPUS)

### FIRST TERM

PE S57. VOLLEY BALL-TENNIS.—1 s.h.

PE S65. HISTORY AND PRINCIPLES OF PHYSICAL EDUCATION.—3 s.h. MR. AYCOCK

PE S190. PROTECTIVE PRACTICES IN PHYSICAL EDUCATION.—3 s.h. MR. MONTFORT



## HISTORY

PROFESSOR CHARLES S. SYDNOR, CHAIRMAN—101 LIBRARY (WEST) ; PROFESSOR E. MALCOLM CARROLL, DIRECTOR OF GRADUATE STUDIES—406 LIBRARY (WEST CAMPUS)

For admission to candidacy for a Master's degree in History the student must present a total of eighteen semester hours of prior work in History, of which at least six must be in American History if he plans to take his major work in that field. Before enrolling for thesis supervision, candidates for the Master's degree are required to complete at least three semester hours of seminar work and are strongly urged to enroll for this work in the second term of their attendance in the Summer Session. (See courses numbered 300 or above.)

## FIRST TERM

- S51. HISTORICAL BACKGROUND OF THE WORLD TODAY 1500-1871.—  
3 s.h. Mr. COLTON
- S63. NAVAL HISTORY AND ELEMENTARY STRATEGY.—3 s.h. Mr. ROPP
- S91. THE DEVELOPMENT OF AMERICAN DEMOCRACY TO 1865.—3 s.h.  
Mr. JOHNSTON
- S105. POLITICAL AND CONSTITUTIONAL HISTORY OF ENGLAND.—  
3 s.h. Mr. HAMILTON
- S238. THE SOUTH FROM 1877 TO THE PRESENT.—3 s.h. Mr. JOHNSTON
- S246. WAR IN THE MODERN WORLD.—3 s.h. Mr. ROPP
- S301. SEMINAR IN HISTORICAL RESEARCH.—3 s.h. Mr. HAMILTON

## SECOND TERM

- S52. HISTORICAL BACKGROUND OF THE WORLD TODAY 1871-1940.—  
3 s.h. Mr. FERGUSON
- S92. THE DEVELOPMENT OF AMERICAN DEMOCRACY, 1865 TO THE  
PRESENT.—3 s.h. Mr. WATSON
- S267. THE TRANSITION FROM MEDIEVAL TO MODERN ENGLAND.—  
3 s.h. Mr. FERGUSON
- S302. SEMINAR IN HISTORICAL RESEARCH. 3 s.h. Mr. WATSON

## LATIN AND ROMAN STUDIES

PROFESSOR ROBERT S. ROGERS, CHAIRMAN—204 CARR (EAST CAMPUS)

## FIRST TERM

- S111. ROMAN LITERATURE IN ENGLISH TRANSLATION.—3 s.h.  
Mr. ROSE

## MATHEMATICS

PROFESSOR J. J. GERGEN, CHAIRMAN—134 PHYSICS BUILDING (WEST CAMPUS) ; PROFESSOR J. H. ROBERTS, DIRECTOR OF GRADUATE STUDIES—230 PHYSICS BUILDING (WEST CAMPUS)

For admission to candidacy for the degree of Master of Arts with major in Mathematics, a student must have a minimum of twenty-four semester hours credit for course work in Mathematics and related fields. This course work must be approved by the Department through the Director of Graduate Studies. It must include differential and integral calculus and an additional six semester hours of work in mathematical courses of at least Junior level.

To obtain the Master of Arts degree with major in Mathematics, a candidate must complete eighteen semester hours of course work in Mathematics, six semester hours of course work in a minor field, and a thesis in Mathematics. The course work must be in courses numbered not less than 200. All work must be approved

by the Department through the Director of Graduate Studies. To help students meet the thesis requirement, the Department offers Thesis Seminar, S389X, in which supervision of thesis writing is available.

Each student should, as early as possible in his graduate work, discuss his program with the Director of Graduate Studies or his representative.

### FIRST TERM

S1. INTERMEDIATE ALGEBRA.—3 s.h.

STAFF

S5. COLLEGE ALGEBRA.—Prerequisite: Mathematics 1, or one and one-half units in algebra and one unit in geometry. 3 s.h.

MR. GERGEN

S6. PLANE TRIGONOMETRY.—Prerequisite: Mathematics 1, or one and one-half units in algebra and one unit in geometry. 3 s.h.

MR. THOMAS

S52. CALCULUS II.—Prerequisite: Mathematics 51. 3 s.h.

MR. CARLITZ

S206. PLANE GEOMETRY AND TRIGONOMETRY FROM THE ADVANCED STANDPOINT.—Prerequisite: Calculus. 3 s.h.

MR. THOMAS

S224. STATISTICS.—Prerequisite: Calculus. 3 s.h.

MR. GERGEN

S225. THEORY OF EQUATIONS.—Prerequisite: Calculus. 3 s.h.

MR. CARLITZ

S389X. THESIS SEMINAR.—Thesis credit only.

MESSRS. CARLITZ, GERGEN, THOMAS

### SECOND TERM

S50. PLANE ANALYTIC GEOMETRY.—Prerequisites: Mathematics 5 and 6. 3 s.h.

MR. DRESSEL

S51. CALCULUS I.—Prerequisite: Must be preceded or accompanied by Mathematics 50. 3 s.h.

MR. ROBERTS

S53. CALCULUS III.—Prerequisite: Mathematics 52. 3 s.h.

MR. ROBERTS

S275. PROBABILITY.—Prerequisite: Calculus. 3 s.h.

MR. DRESSEL

S389X. THESIS SEMINAR.—Thesis credit only.

MESSRS. DRESSEL, ROBERTS

### SOLID GEOMETRY

August 31-September 10. 0 s.h.

MR. ELLIOTT

### PHILOSOPHY

PROFESSOR GLENN NEGLEY, CHAIRMAN—3-1 WEST DUKE BUILDING (EAST CAMPUS) ;

PROFESSOR CHARLES A. BAYLIS, DIRECTOR OF GRADUATE STUDIES—

3-1 WEST DUKE BUILDING (EAST CAMPUS)

#### FIRST TERM

S48. LOGIC.—3 s.h.

MR. WELSH

S91. INTRODUCTION TO PHILOSOPHY.—3 s.h.

MR. WELSH

#### SECOND TERM

S48. LOGIC.—3 s.h.

S91. INTRODUCTION TO PHILOSOPHY.—3 s.h.

### PHYSICS

PROFESSOR WALTER M. NIELSEN, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES—119

PHYSICS BUILDING (WEST CAMPUS)

#### FIRST TERM

S51. GENERAL PHYSICS.—5 s.h.

MR. CARPENTER

S353X. THESIS SEMINAR.—Credits to be arranged.

STAFF

## SECOND TERM

- S52. GENERAL PHYSICS.—Prerequisite: Physics S51. 5 s.h. Mr. CARPENTER  
 S353X. THESIS SEMINAR. STAFF

## POLITICAL SCIENCE

PROFESSOR ROBERT S. RANKIN, CHAIRMAN—308 LIBRARY (WEST CAMPUS) ; PROFESSOR R. R. WILSON, DIRECTOR OF GRADUATE STUDIES—311 LIBRARY (WEST CAMPUS)

## FIRST TERM

- S61. AMERICAN GOVERNMENT AND POLITICS.—3 s.h. Mr. HANSON  
 S161. GOVERNMENT AND PLANNING.—3 s.h. Mr. HANSON  
 S229. RECENT AND CONTEMPORARY POLITICAL THEORY.—3 s.h. Mr. HALLOWELL  
 S231. AMERICAN POLITICAL THEORY.—3 s.h. Mr. HALLOWELL

## SECOND TERM

- S62. AMERICAN GOVERNMENT AND POLITICS.—3 s.h. Mr. SIMPSON  
 S125. AMERICAN POLITICAL PARTIES AND PRACTICAL POLITICS.—3 s.h. Mr. SIMPSON  
 S230. AMERICAN POLITICAL INSTITUTIONS.—3 s.h. Mr. NIXON  
 S261. REGIONAL GOVERNMENT.—3 s.h. Mr. NIXON

## PSYCHOLOGY

PROFESSOR ELIOT H. RODNICK, CHAIRMAN—106 BIVINS BUILDING (EAST CAMPUS) ;  
 PROFESSOR KARL ZENER, DIRECTOR OF GRADUATE STUDIES—205  
 PSYCHOLOGY LABORATORY BUILDING (EAST CAMPUS)

For admission to candidacy for a Master's degree in psychology, the student must present a total of twelve semester hours in psychology beyond the introductory course, at least six semester hours of which must be taken in Senior-Graduate courses. In addition he must have credit for Zoology 1-2 or equivalent.

## FIRST TERM

- S91-92. GENERAL PSYCHOLOGY.—6 s.h. Mr. KIMBLE  
 S211. THE PROBLEM CHILD (also Education S211).—3 s.h. Mr. FILER  
 S232. PSYCHOLOGY OF THE PHYSICALLY HANDICAPPED.—3 s.h. Mr. GARMEZY  
 S303. RESEARCH.—3 s.h. Mr. RODNICK

## SECOND TERM

- S304. RESEARCH.—3 s.h. Mr. ZENER

## RELIGION

PROFESSOR JAMES CANNON, DEAN OF THE DIVINITY SCHOOL—110 DIVINITY SCHOOL (WEST CAMPUS) ; PROFESSOR H. E. MYERS, CHAIRMAN OF THE DEPARTMENT OF RELIGION—204 DIVINITY SCHOOL (WEST CAMPUS) ; PROFESSOR H. SHELTON SMITH, DIRECTOR OF GRADUATE STUDIES IN RELIGION—308 DIVINITY SCHOOL (WEST CAMPUS)

## THE DEPARTMENT OF RELIGION

## FIRST TERM

- S51. THE ENGLISH BIBLE.—3 s.h. Mr. WETHINGTON

- S52. THE ENGLISH BIBLE.—3 s.h. MR. BRADLEY  
 S93. SURVEY OF THE WORLD'S GREAT RELIGIONS.—3 s.h. MR. BRADLEY  
 S94. THE BEGINNINGS OF THE CHRISTIAN CHURCH.—3 s.h. MR. SALES

## SECOND TERM

- S51. THE ENGLISH BIBLE.—3 s.h. MR. PERRY  
 S52. THE ENGLISH BIBLE.—3 s.h. MR. PRICE  
 S114. THE LIFE AND TEACHINGS OF JESUS.—3 s.h. MR. PRICE  
 S182. LIVING RELIGIONS OF THE WORLD.—3 s.h. MR. PERRY

## THE DIVINITY SCHOOL

Courses carrying credit in the Divinity School only are numbered from 101 to 199. Courses approved for credit in both the Divinity School and the Graduate School of Arts and Sciences are numbered above 200. Students entering the Divinity School for the first time in the Summer Session of 1953 will choose courses numbered from 101 to 199.

## FIRST TERM

- S105. (DS). LIFE OF PAUL.—3 s.h. MR. MYERS  
 S111 (DS). INTRODUCTION TO CHRISTIAN SOCIAL ETHICS.—3 s.h. MR. BEACH  
 S158 (DS). CHRISTIAN EDUCATION AND THE COMMUNITY.—3 s.h. MR. KALE  
 S178 (DS). PUBLIC WORSHIP.—3 s.h. MR. CLELAND

## SECOND TERM

- S197 (DS). CULTURAL HISTORY OF PALESTINE.—3 s.h. MR. STINESPRING  
 S199 (DS). THE AMERICAN SOCIAL GOSPEL.—3 s.h. MR. SMITH  
 S310 (DS). OLD TESTAMENT PROPHECY.—3 s.h. MR. STINESPRING  
 S398 (DS). MODERN AMERICAN CHRISTOLOGY.—3 s.h. MR. SMITH

## SOCIOLOGY

PROFESSOR HOWARD E. JENSEN, CHAIRMAN—215E SOCIAL SCIENCE BUILDING (WEST CAMPUS) ; PROFESSOR HORNELL HART, DIRECTOR OF GRADUATE STUDIES—215D SOCIAL SCIENCE BUILDING (WEST CAMPUS)

The Department of Sociology offers graduate work leading to the A.M. and Ph.D. degrees. Before undertaking advanced work in this department, a student must have completed a minimum of twelve semester hours of approved preliminary courses in the field, and twelve additional semester hours in the field or in related work. A student who is deficient in the minimum required work will be asked to take additional undergraduate courses agreed upon in conference with the Director of Graduate Studies.

Candidates for advanced degrees in Sociology usually take minor work in Psychology, Economics, Political Science, Education, History, or Religion. Detailed requirements for the minor work, and for majors in other departments who wish to present Sociology as minor work, may be obtained from the Director of Graduate Studies.

## FIRST TERM

- S91-92. GENERAL SOCIOLOGY.—6 s.h. MRS. WHITRIDGE

(Course 91-92, or 101, or 111, or 112 is prerequisite to all other courses in the department. Course 91-92, or 101 is required of all students majoring in the department.)

S235. URBAN SOCIOLOGY.—3 s.h.	MR. THOMPSON
S238. RACE AND CULTURE.—3 s.h.	MR. THOMPSON
S249. CHILD WELFARE.—3 s.h.	MR. HART
S250. MARRIAGE AND THE FAMILY.—3 s.h.	MR. HART

## SECOND TERM

S246. PUBLIC OPINION AND PROPAGANDA.—3 s.h.	MR. SCHETTLER
S274. CONTEMPORARY SOCIAL PROBLEMS.—3 s.h.	MR. SCHETTLER

## SPANISH

PROFESSOR BRADY R. JORDAN, CHAIRMAN OF DEPARTMENT OF ROMANCE LANGUAGES AND  
DIRECTOR OF GRADUATE STUDIES—214 CARR BUILDING (EAST CAMPUS) ; ASSOCIATE  
PROFESSOR GIFFORD DAVIS, DIRECTOR OF THE SCHOOL OF SPANISH  
STUDIES—201 GRAY

## FIRST TERM

S1. ELEMENTARY SPANISH.—3 s.h.	MR. TORRE
S2. ELEMENTARY SPANISH.—3 s.h.	MR. TORRE

NOTE: A student enrolled in S2 must also attend S1 unless he has passed Spanish 1 in the immediate spring semester.

S3. INTERMEDIATE SPANISH.—3 s.h.	MR. DAVIS
S4. INTERMEDIATE SPANISH.—3 s.h.	MR. FEIN
S65. INTRODUCTION TO MODERN SPANISH LITERATURE.—3 s.h.	MR. FEIN

S68. INTRODUCTION TO SPANISH-AMERICAN LITERATURE.—3 s.h.	MR. ANDERSON IMBERT
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SI74. CONVERSATION AND PRONUNCIATION.—3 s.h.	MR. PREDMORE
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S247. CONTEMPORARY TRENDS IN HISPANIC LITERATURE.—3 s.h.	MR. ANDERSON IMBERT
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S260. ADVANCED COMPOSITION AND SYNTAX.—3 s.h.	MR. PREDMORE
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## ZOOLOGY

PROFESSOR IRVING E. GRAY, CHAIRMAN AND DIRECTOR OF GRADUATE STUDIES—218 BIOLOGY  
BUILDING (WEST CAMPUS)

For admission to candidacy for a Master's degree in Zoology, a student should have completed an undergraduate major in Zoology (courses in General Science and Botany are not counted as a part of a Zoology major). This normally amounts to about twenty-four semester hours, which should be distributed among various fields of Zoology, and must include Vertebrate Zoology or Comparative Anatomy, Physiology, and Embryology, passed with creditable grades. A candidate should also have completed at least one year of Chemistry. Work for the degree will require eighteen hours in advanced courses in Zoology, and six hours in another department for a minor, in addition to a thesis. Before registration for a degree, students should confer with the Director of Graduate Studies for the Department. Students not candidates for a degree may take courses offered if they have necessary prerequisites but may not count them toward a degree until an undergraduate major has been completed.

## FIRST TERM (on Duke Campus)

S1. GENERAL ZOOLOGY.—4 s.h.	MR. BARNES
S53. COMPARATIVE VERTEBRATE ANATOMY.—4 s.h.	MR. ROBERTS
S219. SPECIAL PROBLEMS.—2-6 s.h.	STAFF



S231. ACAROLOGY.—3 s.h.

MR. BAKER AND MR. WHARTON

S232. MEDICAL AND VETERINARY ACAROLOGY.—3 s.h.

MR. STRANDTMANN AND MR. WHARTON

S233. AGRICULTURAL ACAROLOGY.—Prerequisite: S231 or its equivalent.  
3 s.h. MR. PRITCHARD AND MR. WHARTON

S353. RESEARCH.—2-6 s.h.

STAFF

FIRST TERM (Marine Laboratory at Beaufort, North Carolina)

S203. MARINE ECOLOGY.—6 s.h.

MR. GRAY

S214. OCEANOGRAPHY.—5 s.h.

MR. PRITCHARD

S219. SPECIAL PROBLEMS.—2-6 s.h.

STAFF

S353. RESEARCH.—2-6 s.h.

STAFF

SECOND TERM (on Duke Campus)

S2. ANIMAL BIOLOGY.—Prerequisite: Zoology 1. 4 s.h.

MR. VERNBERG

S92. GENERAL EMBRYOLOGY.—Prerequisite: Zoology 53. 4 s.h.

MR. HORN

S219. SPECIAL PROBLEMS.—2-6 s.h.

STAFF

S353. RESEARCH.—2-6 s.h.

STAFF

SECOND TERM (Marine Laboratory at Beaufort, North Carolina)

S274. MARINE INVERTEBRATE ZOOLOGY.—6 s.h.

MR. BOOKHOUT

S219. SPECIAL PROBLEMS.—2-6 s.h.

STAFF

S353. RESEARCH.—2-6 s.h.

STAFF

# ROSTER

1952-1953

TRINITY COLLEGE

THE COLLEGE OF ENGINEERING

THE WOMAN'S COLLEGE

THE GRADUATE SCHOOL OF ARTS AND SCIENCES

THE DIVINITY SCHOOL

THE SCHOOL OF LAW

THE SCHOOL OF MEDICINE

THE SCHOOL OF NURSING

THE SCHOOL OF FORESTRY

# Degrees and Honors

The following degrees were awarded June 1, 1953:

## A.B. DEGREE

Accardo, Philip Joseph	Cartwright, Margaret Elizabeth
Adams, Walter L.	Carver, George Wilson
Alan, David Alan	Castor, Donald Franklin
Aldridge, Cornelia Boardman	Cates, Jerry H.
Alexander, Frank Hugh, Jr.	Caudle, Lloyd Cameron
Allen, Laura Lee	Causey, Ann Elizabeth
Alyea, Nancy Anderson	Chapman, William Ennis
Ammerman, Raymond Perry, Jr.	Chappell, James Dodson, Jr.
Anderson, William Heartly	Christy, Robert Harold
Aronberg, Harold	Clark, Henry B., II
Atkins, James Harrison	Claxton, Richard Allen
Atkinson, Bettie Helen	Clay, Jane Elaine
Atkinson, James Carroll	Clements, Peyton
Baldwin, Joseph Lyle, Jr.	Cohan, Mary Patricia
Ballantyne, Mary Loretta Stevens	Cole, John Owen
Baptiste, Edward Joseph	Coleman, Robert Albert
Barden, Lawrence Edgerton	Cradley, George Abraham
Barnes, John Hyce	Crawford, Tommy York
Barrows, Nancy Ward	Crumpler, Benton Eugene, Jr.
Barry, John Lavallen, III	Crutcher, Frances Dinkins
Barton, Gerald J. deMacedo	Cummings, Alton T.
Bass, Robert Homer	Curley, John Edward
Bauman, S. Richard	Dabney, Elizabeth Prewitt
Baylin, Jack Lee	Darling, Glenn Alan
Bedell, Richard Ferrandou	Davidson, Williams T., Jr.
Bell, George Copeland	Davis, Ann
Benson, Bruce Welsh	Davis, Robert Paul
Bernard, Harold, Jr.	Dawson, Mary Howland
Berney, Norman Adam	Dean, William Howard
Bixby, Mary Louise	Dellenbarger, Lynn E., Jr.
Bland, Billy Ray	Denny, George Richard
Blanks, Marguerite	Denunzio, Don
Blight, Jane Ann	DePass, Nancy Witherspoon
Bohn, Mary Lucile	Diamond, Paul Harvey
Bolmeier, Barbara Joan	Dickey, Carl O., Jr.
Benin, Carl Joseph	Divine, Elinor Faxton
Bouldin, Eugene Körner	Dodge, Paul G.
Bowles, Lawrence Thompson	Dohner, Patsy McCain
Boyd, Melvin Thomas	Dollens, Marjorie Lou
Boyle, Beverly Kay	Dowdy, Patricia Ann
Boysworth, Jeannine	Downes, Mary Elizabeth
Brigstocke, Joan Dunbar	Drew, Dora Anne
Britt, Robert Dewey, Jr.	Dufort, Robert Hamilton
Broadus, Claire Tyler	Duncan, John Nelson, Jr.
Brokenshire, Janet Davis	Dunham, Dorothy Elizabeth
Brooks, Elizabeth Ann	Dunn, Margaret Gibbs
Brooks, Frederick Phillips, Jr.	Earnest, William Lee
Brooks, Leonard Howard	Earnhardt, Wiley Jacob Propst, Jr.
Brooks, Thomas Donald	Easterling, William Ewart, Jr.
Brown, Caroline Gordon	Eaton, Leslie Alice
Brown, Sarah May	Edwards, Geoffrey Bruce Owen
Bruce, Betty Louise	Efland, Marjorie Ann
Brunkow, Jane Frances	Elder, Mary Louise
Bryan, Jean Lockitt	Elder, Thomas David
Buie, James C.	Eldridge, William Butler
Bush, Bobby Wesley	Eley, Elizabeth Jump
Butrym, Robert Earl	Evans, Barbara Lee
Bynum, Frank Bundy, Jr.	Evans, Carol Austin
Byron, Alexander	Evans, Diane Mae
Cannon, Samuel Elmer	Farley, Francis Clayborne
Cardozo, Joseph Lopez, Jr.	Farquhar, William Edward
Carey, John Jesse	Farrington, John Kirby
Carnahan, John Anderson	Ferrell, Ann Gamble
Carr, Mitta Gairdner	Finter, Patty Preston
Carroll, John Norman	Fisher, Emily Margaret
Carson, David Gardner	Fisher, Margaret Alice
Carter, John Holbrook	Fisher, Robert Warren
Carter, Katherine Ray	Flannery, Virginia Sayles

Foreman, Thomas Lee  
 Fox, Randolph Val  
 Fredricks, Richard Niel  
 Freedy, Robert J.  
 Fullerton, Margaret Bishop  
 Fullerton, Philip C.  
 Gachet, Fred Smith, Jr.  
 Gage, Gaston Hemphill  
 Galloway, Barbara Jeannette  
 Garbler, Anna Baker Wiggins  
 Garrett, John William, III  
 Gatewood, Willard Badgette, Jr.  
 Getz, Robert Samuel  
 Gibbons, John David  
 Gilbert, Charles E.  
 Gilbert, Eddie Reid  
 Gilbert, Lois Waldrop  
 Gilmore, Charles Nelson  
 Givens, Dingess M.  
 Gleason, Jane Lansing  
 Glenn, James Hartman  
 Gluck, Morton Chester  
 Goebert, Herbert William, Jr.  
 Goldman, Sally Ann  
 Goldstein, Harold Milton  
 Goldthwaite, Alice Helen  
 Gordon, Bruce Joel  
 Gore, Dorcas Anne  
 Gorrell, Robert Pinkney  
 Gotwals, Kathryn Lee  
 Gould, Donald Wehmann  
 Graham, Alice Virginia  
 Graves, Charles Edward  
 Greenberg, Allen  
 Greenberg, Larry B.  
 Greene, John C.  
 Greenwald Stuart Morris  
 Greer, Dewey Hobson, Jr.  
 Griesenbeck, Richard W.  
 Grillo, Robert Lynn  
 Grinaker, Arne James  
 Groat, Richard Morrow  
 Groome, Augusta  
 Grover, Joan L.  
 Gummels, Joan Martha  
 Gunderson, Ann Kathryn  
 Gwyn, Thomas Marshall  
 Hager, Gerald Leonard  
 Hall, James Samuel, Jr.  
 Hall, Robert Rhett  
 Hamilton, James William  
 Hanes, William Poindexter  
 Hanner, Richard R., Jr.  
 Hansbarger, Luther Clark  
 Hardison, Mary Adele  
 Harter, Barbara Alice  
 Hayes, Joan Pringle  
 Hazel, Gerard Bernard  
 Hedley, Gilbert Parsons  
 Heim, Clara Ann  
 Hennessey, Ellen  
 Henry, Granville Conner, III  
 Herndon, William Wesley  
 Herron, John  
 Hicks, Samuel Alfred  
 Hill, Boyd Howard, Jr.  
 Hilliard, Roy Chamblee  
 Hillman, Nancy Jane  
 Hinson, Patricia Travis  
 Hite, Charles Land  
 Hobbs, Nancy McRae  
 Hobby, Lovic Worth  
 Hodgins, John Nolan  
 Hoffman, Joyce Ann  
 Hoffman, Carolyn Campbell  
 Hoffman, Theodore Schott  
 Hogue, David G.  
 Hollbeck, Anne Miller  
 Hollifield, Mary Alice  
 Holloway, Jo Anne Foster  
 Holton, Mary-Marie  
 Hooker, Lois  
 Houk, J. Edwin  
 House, Marcia Carmichael  
 Howe, Bobby Edward  
 Howe, William Albert, Jr.  
 Howell, Eugene Davis  
 Hughes, Ruth Hundley  
 Hull, Judith Eileen  
 Hull, Robert Miller  
 Hulse, Irene  
 Humphrey, Joseph W. H.  
 Hurst, Lawrence R.  
 Hurst, Nancy May  
 Innes, Thomas Charles  
 Jackson, Helen Louise  
 Jackson, Nelson Pointer  
 Jacobs, Mary Lou  
 Jacobs, Roy Marshall  
 Jahn, Jeryl May  
 James, Walter Scott, Jr.  
 Jenkins, Dorothy  
 John, Louise Reese  
 Johnson, Richard Allan  
 Jones, Leonidas Merritt, Jr.  
 Jones, Virginia Ruth  
 Jordan, Margaret Stephens  
 Jordan, Terrell Franklin  
 Kale, Sarah Dean  
 Kauffman, Holiday Clay  
 Keller, Donald Holland  
 Keller, Thomas F.  
 Kelley, George Erving  
 Kennemore, Douglas Ervin  
 King, Alice Campbell  
 Kirkman, Shirley Elizabeth  
 Klein, Arthur Jerome  
 Knabe, John Richard  
 Knight, Kinchen Coffield  
 Knott, Marsha  
 Knotts, Clarence Cole, Jr.  
 Koons, Jean Thorburn  
 Kosterlitz, Ruth  
 Kramme, Gerald Andrew  
 Kulpan, James Neil  
 Lackey, Dixon Alexander, Jr.  
 Lake, Eleanor Betty  
 Lassiter, Vernon Clarke, Jr.  
 Latimer, Richard Lee  
 Lauck, Virginia  
 Lea, Virginia Ramsay  
 LeBauer, Sidney Irwin  
 Levenson, Bernice  
 Lineberger, Joe Glenn  
 Lipscomb, Nell Imogene  
 Loane, Jabez Whitford, IV  
 Long, Sherman Edgar, Jr.  
 Longcrier, Mary Alice  
 Lowndes, John Foy  
 Luck, Jean Magill  
 Lutton, Gerald Clark  
 Mackie, Patricia Jean  
 Markee, Shirley June  
 Marks, Dennis Gilbert  
 Marshall, Robert Edward  
 Martin, Donald Francis  
 Massey, James A., Jr.  
 Mathes, John Franklin, Jr.  
 McCarter, Joan Adele  
 McClain, Joseph Adolphus, III  
 McCluskey, John Cullers  
 McConnell, Marion Louise  
 McFarling, Harry Montgomery, Jr.  
 McGill, Lelia Autrey  
 McKelvey, Priscilla Kay  
 McKenzie, Claude Fleatus  
 McKinney, Jane Fulton  
 Means, Edward Douglas, Jr.  
 Menefee, Mary Ann  
 Michael, Doris Hall  
 Michael, Robert Frederick, Jr.  
 Miles, Jane Cynthia

Milford, Dolores Ann  
 Miller, Nancy June  
 Miller, Thomas Templin  
 Mitchell, Billy Pender  
 Morris, Patricia Blount  
 Morrison, Norton Hotchkiss  
 Morse, Theodore Frederick  
 Moseley, Robert Galloway  
 Mounie, John Robert, Jr.  
 Mueller, John George  
 Murchie, Muriel Elsie  
 Naugle, David Randolph  
 Neumeister, Leslie Leroy  
 Newland, Mary Jane  
 Nial, George Anderson  
 Nichols, Nancy Elizabeth  
 Northrop, Samuel, Jr.  
 Nowell, Jean Marshall  
 O'Brien, Jay  
 Ost, John William Philip  
 Otis, Leone Lawrence  
 Painter, William Edward  
 Parham, Patricia Blanche  
 Parker, Suzanne  
 Parr, Bobby Lee  
 Parrish, Fred K.  
 Peck, Kenneth Owen  
 Perry, Pauline Slater  
 Phillips, Elizabeth Lee  
 Platte, Dorothy Ann  
 Powell, Albert Henry, Jr.  
 Quarterman, Maneta Ann  
 Rae, Ruth Pauline  
 Rambo, James Warren  
 Ramey, Joan Gilliam  
 Ratliff, Dale  
 Reams, Mary Glenn  
 Redmond, James Seymour, Jr.  
 Reece, Benny Ramon  
 Reece Patricia Ann  
 Renuart, Ruth Kimmel  
 Ricker, Huntley Norman  
 Riegle, Shirley  
 Ritch, James Earle, Jr.  
 Rivers, Thomas Milton, II  
 Roberts, Ivon Elwood  
 Robinson, Harriet  
 Robinson, Mary Ann  
 Rockwood, John, Jr.  
 Rogers, Nolan H.  
 Roseborough, Virginia Lee  
 Rosenbaum, Norman M.  
 Rosenberg, John Meinhardt  
 Rosenmund, Robert Alfred  
 Rosenson, Leon Mendel  
 Roughton, Ralph Emerson, Jr.  
 Rovegno, Donald Cowie  
 Rowe, Arthur Wilson  
 Ryan, Patricia  
 Sack, Martin, Jr.  
 Sage, June Carol  
 Sanders, William Eugene  
 Santamaria, Angelo Roque  
 Saunders, Virginia Shea  
 Saylor, Thomas Paul  
 Schaffer, William Ronald  
 Schafroth, Donald Milton  
 Scheffer, Miles Howard  
 Schoonmaker, Fred Walter  
 Schuster, Ann Prescott  
 Schwartz, Ronald Muni  
 Schweistris, Lazette Yvonne  
 Seaberg, Barbara Glenn  
 Self, Joseph Morrison  
 Self, Leah Margaret  
 Sharer, R. Kenyon, Jr.  
 Shepherd, Bernice Clarke  
 Shuford, Anne  
 Siegle, Betty Louise  
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 Smith, Laura LaRose  
 Smith, Sidney Rufus, Jr.  
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 Smith, Virginia Eleanor  
 Smith, Whitman Erskine, Jr.  
 Snook, Valerie Emery  
 Sommers, Richard Llewellyn  
 Soo, Kit Wan  
 Spearman, Cecil Eldon, Jr.  
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 Spofford, Donald Edward  
 Stahl, Frederick Andrew, II  
 Stangeland, Greta S.  
 Stark, Lawrence Wendell  
 Stark, Rufus Haywood  
 Starnes, William Brantley  
 Stathacos, Eustace James  
 Stewman, Ann Flinton  
 Stiles, Susan Gay  
 Stockdale, Sarah Frances  
 Strauch, David Mahlon  
 Strickland, Donald Bennett  
 Strozier, Viola Nelle  
 Stuart, Eugene Washington, Jr.  
 Stubbins, Billie Jeanne  
 Stubbs, Robert Walter  
 Sutton, John Hardy, Jr.  
 Sutton, Rachel Marie  
 Swain, Joe Oliver  
 Sward, Gilbert Leinbaugh  
 Swift, Isabelle Boyd  
 Swing, Mervin, Jr.  
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 Taylor, David Wilson  
 Taylor, George F., Jr.  
 Taylor, William A.  
 TenHouten, Edward William  
 Thompson, Betsy King  
 Tice, James Richard  
 Tignor, Nan Kellum  
 Tillman, Roy Davis  
 Tolleson, George Clinton Buquo  
 Torgersen, Mathias S., Jr.  
 Trainer, Bettina Anne  
 Trentman, Elizabeth Denne  
 Turner, Florence Delia  
 Underwood, Roland Hilton  
 Upchurch, Carlton Eugene  
 Urban, Dolores Jeanne  
 VanDeventer, Robert Rinard  
 Vendig, Laurie Ann  
 Vokoun, Sally Arlene  
 Walker, Clarence Wesley  
 Wallace, James Edward Owens  
 Wannamaker, Mimi Emily  
 Watchman, Avis Rand  
 Waterfield, Frances McGill  
 Watkins, Nancy Thomas  
 Watov, Richard Halpern  
 Watson, Charles Sullivan  
 Way, Mary Ann Massie  
 Weber, Emily Ann  
 Weigel, Mary Patricia  
 Welch, Bernie Burnette  
 Welchman, Charles Barret  
 Werber, William Waldemar  
 West, Jeanne Marie  
 Westcott, Marilyn Joyce  
 White, Christina Kathryn  
 White, Robert Louis  
 White, Robert Torrence  
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 Wichman, Ann Elise  
 Wike, Catherine Shirley  
 Wilbanks, George Dewey, Jr.  
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 Wilson, Carroll Vaughn  
 Wilson, Walter Quinten  
 Winfield, Gordon Telfair, Jr.  
 Winslow, William Troy



Winters, Mary Tepel  
Woolard, William Leon  
Woolery, Martha Belle  
Worrell, Margaret Geiger  
Young, Alvin Martin

Young, Bettie Anne  
Zanner, Genevieve Ellen  
Zapf, Brenda  
Zavertnik, Otis Vernon  
Zintbaum, William E.

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Crowell, Joan Lovelace  
Darkis, Thomas Morris  
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Erwin, Albert Rich, Jr.  
Evans, Phillip William  
Feild, Richard Worthington  
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Gaby, Donald Charles  
Gatsch, Marie  
Glass, Nina Ruth  
Haskell, Weston W.  
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Martin, Charles Edward, II  
McRae, Martha Kate  
Merritt, Marjorie Anne  
Montgomery, Douglas Gale  
Popp, Elaine  
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VanBilliard, Alicia Pauline  
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Vaughan, Marilyn Frances  
Wainwright, Stephen Andrew  
Weiss, Alfred Hans, Jr.  
Zerby, Arthur William Elwood, Jr.

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Cresse, Anna May  
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Hall, Sarah Belle  
Hyder, Jane Rhea  
Kivett, Dorothy Marie

Langston, Jeanne Elizabeth  
Long, Sallie Hardison  
Maxwell, Clarice June  
Olson, Mary Margaret  
Stovall, Sylvia Frances  
Wagner, Mary Josephine  
Willard, Norma Lee

B.S. DEGREE IN NURSING EDUCATION

Bellersen, Rita Catherine  
Mertz, Phyllis Jane  
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Perrin, Jeane Augusta

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Scott, Martha Ellen  
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Westmoreland, Rachel Bernice

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Eure, Thomas Duncan  
Houck, Frederic Ronald  
Jones, Charles Sherfy  
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Kennedy, Kermit Doyle  
Lucas, David Michael  
Lyon, Carlos Marshall

Nelson, Forrest Eugene  
Pierry, Robert Francis  
Rumer, Ralph Raymond, Jr.  
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Shipp, William Beasley  
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Stokes, William Alvis  
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Gross, Kenneth Eugene  
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Suit, James Ray  
Tucker, Royster Milton  
Wright, William Vaughn

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Blizard, John Walter Frederick, Jr.  
Bovaird, George C.  
Broom, Phillip Ward  
Brown, Bruce MacDonald  
Connor, Lyle Burtrum  
Coppla, George Harrill  
Grove, Gordon Vennard  
Heckert, Richard J.  
Holbrook, James Edwin, Jr.  
Huffer, Nicholas Robinson  
Hussey, George Frederick, III

Kehlor, Gerard Evan David  
McGiehan, Donn  
Mylrea, Bruce William  
Powell, Ernest Clifton, Jr.  
Russell, Luther Oscar, Jr.  
Rutter, Donald Harris  
Schafroth, Douglas Werner  
Schieber, Richard M.  
Shufelt, Charles Emery  
Tepe, Louis C.  
Waser, Charles Willard

DIPLOMA IN NURSING

Blalock, Doris Jean  
Boren, Jerre Denning  
Bound, Margaret Sue  
Britt, Mattie Heiman  
Brunson, Norma Janet  
Burgess, Betty Bahnson

Caperton, Betty Jean Richardson  
Daniels, Edna Virginia  
Davis, Elsie Germaine  
Dees, Doris Jean  
Edwards, Mary Ruth  
Elmore, Anne Elizabeth

Ezell, Lillian Shirley  
 Fletcher, Audrey Joan  
 Flora, Betty Jane  
 Foster, Virginia Gault  
 Fuller, Elizabeth Ann  
 Gatewood, Laura Maude  
 Griffith, Jean Elizabeth  
 Harper, Barbara Ann  
 Haynes, Shirley Louise  
 Hooker, Rowena Ann  
 Johnson, Betty Sue  
 Johnston, Elizabeth Lyne  
 Kime, Mary Lois  
 Lamond, Mary Wilson  
 Larson, Betty Jane

Marchman, Mary Llewellyn  
 McLellan, Mary Anne Facemire  
 Miller, Joan Frances  
 Mouillesseaux, Joyce  
 Pruitt, Mildred Margaret  
 Reynolds, Norma Hurley  
 Rogers, Gwendolyn Lou  
 Romano, Joanna Phyllis  
 Sarratt, Ann Elizabeth  
 Schellenberg, Shirley Anne  
 Smith, Eunice Mae  
 Vashaw, Jeanne  
 Watlington, Ida Mae  
 Williams, Bettie Josephine  
 Wright, Nancy Lee

## B.S. DEGREE IN MEDICINE

Jelks, Allen Nathaniel

Parkerson, George Robert, Jr.

## M.R.E. DEGREE

Critcher, Martha C.

Zink, Mary Williams

## M.ED. DEGREE

Lang, Alice Virginia  
 Morgan, Blanche Evelyn

Tovera, David Garcia

## M.F. DEGREE

Arnette, Talmadge Edison  
 Bonnallie, Chester Alexander, Jr.  
 Buckner, Edward Reap

Hatchell, Glyndon Elbert  
 Markley, Jack Hutcheson  
 Riley, Walter Samuel

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 Adcock, Louis Henry  
 Breibart, Sidney  
 Bridges, Beverly Ann  
 Bunn, Ronald Freeze  
 Chamberlain, John Victor  
 Clark, Virginia Louise  
 Edwards, Thelma Catherine  
 Foss, John Huston  
 Frayser, Regina  
 Gable, Ralph William  
 Gatlin, Clyde Talmadge  
 Glickfield, Charlotte Woods  
 Haber, Pierre-Claude  
 Hart, Joseph Tate  
 Hausman, Carl Ransdell  
 Hawkins, Jean Ellen  
 Heckman, Richard Cooper  
 Herbert, Mary Eloise  
 Herron, E. Warren  
 Hodges, John Herbert  
 Holcomb, Shirley Lou  
 Johnson, Allen Saunders  
 Jones, Edward Lee, Jr.  
 Keefer, Truman Frederick  
 Klostermann, Janet Gay  
 Leake, Preston Hildebrand  
 Leake, William Walter  
 Lemos, Ramon Marcelino

Mansfield, Edwin  
 Marschka, Edwin Howard  
 Martin, Betty Jean  
 Maturro, Frank J. S., Jr.  
 McCormack, Jeanne Eagles  
 Milburn John William  
 Morison, Gordou Calvin  
 Morris, Walton  
 Murphy, Frederick F.  
 Murray, Mary Jane  
 Noble, Lawrence Everman, Jr.  
 O'Brien, Janice Patricia  
 Pekkala, Salmie Anne  
 Peyton, Philip Barbour, Jr.  
 Pruette, Rowland Shaw  
 Ramsaur, Edmund George, Jr.  
 Reiser, John Shealy  
 Rock, William Ray  
 Rosenberg, Alexander F.  
 Simmons, Bowen Eugene  
 Southern, James Albert  
 Southern Pauline Barnwell  
 Sperry, William Hartley  
 Stillwell, Edgar F.  
 TePaske, John Jay  
 Trapnell, Emily Annette  
 Upton, Anthony Frederick  
 Walker, Thomas Banner  
 Whitcombe, David Niles

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 Bennett, William L.  
 Brown, Chester Darroll  
 Burks, Peter Talmadge  
 Bush, Warren Thomas  
 Cahow, Clark R.  
 Clary, Carl Douglas  
 Copeland, Isaac Mathias, Jr.  
 Desrosiers, Norman Alfred  
 Dorr, Robert Warren  
 Fike, Earle William  
 Fitzgerald, Bernard Ray  
 Fowlkes, Ralph Eugene, Jr.  
 Gibson, Earl Kay  
 Gibson, Robert Stansill  
 Groves, David C.

Hall, James Thomas  
 Hill, Fred Adam  
 Hinrichs, Conley Kent  
 Horne, Kenneth Arthur  
 House, Thomas Holmes  
 Johnson, Edward Weldon  
 Kincaid, E. Lamar  
 Lackey, John Robert  
 Lee, Robert E.  
 Maness, Charles McKinley, Jr.  
 Marsh, Donald Frederick  
 McClure, Bruce Eugene  
 Mitchell, Frank Joseph  
 Montfort, Russell Thompson  
 Nees, Forest Glenn  
 Owen, John Malloy, III

Pledger, Bennie Edward  
 Polley, Max Eugene  
 Pruyn, Harold Andrew  
 Ramsey, Vernon Jerome  
 Rich, William Alfred  
 Schores, Daniel Mortimer, Jr.  
 Selstad, Robert Arney  
 Sexton, Kenneth Bryan  
 Shepherd, Douglas Nelson  
 Smith, Frank Ira

Smotherman, Ernest Hermon  
 Spears, Jimmie Wray  
 Taylor, Eben  
 Turner, Sterling D., Jr.  
 Tyson, Joseph Blake  
 Wallace, Carl E.  
 Williams, Jack  
 Wyand, Fred B., Jr.  
 Young, Russell Lowell, Jr.

## LL.B. DEGREE

Biloon, Harold Levin  
 Brooks, Vallie Carlton  
 Butler, Clifford Leroy, Jr.  
 Chadwick, Harry Roberts, Jr.  
 Chambers, Julian Horne, Jr.  
 Corley, Donald George  
 Dawson, John B., Jr.  
 Dickens, Wade Hampton, Jr.  
 Elf, Robert Duane  
 Galifanakis, Nick  
 Gwyn, Julius Johnston  
 Hagel, Harry  
 Hubbard, R. Carl  
 Hudspeth, George Lee  
 Isley, Hugh Galloway, Jr.

Kellam, Floyd Eaton, Jr.  
 May, Cecil Dalton  
 Renfrow, Robert Perry  
 Shaw, John Daniel, Jr.  
 Shuford, William A.  
 Smith, Calvin E.  
 Smith, Lee Creecy  
 Thompson, Richard Carroll  
 Wagner, William Dean  
 Walker, James Warren  
 Weaver, Lucius Stacy, Jr.  
 Webster, Richard Carlton  
 Williamson, Edward Lorenza  
 Zimmerman, James Lawrence

## LL.M. DEGREE

Cox, Robert Doyle

Oshiro, Robert Chosei

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Adams, Reuben Homer, Jr.  
 Anderson, William Henry, Jr.  
 Appen, Raymond Carl  
 Ayerst, Robert Irvin  
 Bacos, James Michael  
 Baer, Bruce Lawrence  
 Bell, William Reed  
 Berlin, Melvin  
 Berry, Joseph Norman  
 Blackard, Embree Hoss, Jr.  
 Bondurant, Stuart Osborne, Jr.  
 Bonner, Octavius Blanchard, Jr.  
 Borden, Richard Winstead  
 Boren, Richard Benjamin III  
 Brice, George Wilson, Jr.  
 Bridges, R. McIntyre  
 Brockmann, John Lyndon  
 Bryant, Gerald Don Nelson, Jr.  
 Bullard, Lubin Fletcher, Jr.  
 Butler, William Gilbert, Jr.  
 Caffey, John Williams, Jr.  
 Cain, Frank Coral, Jr.  
 Carter, Needham Battle  
 Casto, Dorothy Louise  
 Chick, Ernest Watson  
 Chittum, John Raymond  
 Cobey, William Gray  
 Davidson, William David  
 Earley, Charles Marion, Jr.  
 Edwards, Ian Keith  
 Evans, Eugene Micheaux, Jr.  
 Evans, William Canfield, Jr.  
 Fishel, John Lewis  
 Flanagan, John Francis  
 Fogleman, Ross Lee, Jr.  
 Fowler, William Robert  
 Garlington, Laurens Nelson  
 Gibbes, Robert Waller  
 Gleason, William Lounsbury  
 Glenn, James Francis  
 Hall, Kenneth Daland  
 Harper, Matt Cleveland, Jr.  
 Hicks, Julius Norton

Hillman, Charles Harlan  
 Keck, Charles, Jr.  
 Kent, Alfred Henry  
 Kernodle, Donald Reid  
 Lane, Harold Compton  
 Link, Robert Jeffrey  
 Lyday, William Davie  
 Mabe, Paul Alexander, Jr.  
 Mabry, Edward Bloxton  
 McArn, Hugh Munroe, Jr.  
 McCall, John B., Jr.  
 McNeely, Irwin Hollar  
 Meiselman, Rudy Karmus  
 Metcalf, Boyd Hendren  
 Miller, Augustus Taylor, Jr.  
 Niblock, Franklin Chalmers, Jr.  
 Overton, Dolphin Henry, Jr.  
 Parker, Mayon Vann  
 Parkerson, George Robert, Jr.  
 Pearson, John Kent  
 Perry, William John  
 Pierce, Ellison Cline, Jr.  
 Pollard, Lawrence Welford, Jr.  
 Rankin, Richard Brandon, Jr.  
 Reif, Anne Carolyn  
 Rosomond, Robert Malone  
 Sager, Samuel Ott  
 Somers, James Earl  
 Stickel, Delford LeFev  
 Tatom, Louis  
 Terrell, Sara Eldora Haworth  
 Terrell, Thomas Eugene  
 Urban, Adolph Joseph  
 Vestal, Tom Alford  
 Watt, Thomas Bunyan, Jr.  
 Welch, George Harrison, Jr.  
 Williams, Jean Babington, Jr.  
 Williams, Jesse Lee, Jr.  
 Winslow, Francis Edward, Jr.  
 Woodbury, Philip Stephen  
 Worsham, Julius Berry, Jr.  
 Young, Charles Gibson

## PH.D. DEGREE

Abbot, William Wright, III, A.B., University of Georgia; A.M., Duke University.  
 Dissertation: "Georgia Under the Royal Governors, 1754-1775."

- Abbott, Samuel Lee, Jr., B.S., Middlebury College; M.S., University of Connecticut.  
Dissertation: "A Study in Factor Analysis: Relationships Between Measures of Success in Arithmetic and Factors Obtained by Two Solutions."
- Allen, Ray Maxwell, A.B., Southwestern at Memphis; B.D., Duke Divinity School.  
Dissertation: "The Christology of P. T. Forsyth."
- Allen, William Richard, B.A., Cornell College.  
Dissertation: "Modern American Tariff Debates and the Trade Agreements Program."
- Barnes, Robert Drane, B.S., Davidson College.  
Dissertation: "The Ecology of the Spiders of Non-Forest Maritime Communities at Beaufort, North Carolina."
- Bevan, John Morgan, A.B., Franklin and Marshall College; B.D., M.A., Duke University.  
Dissertation: "Effects of Stress upon Certain Physiological Mechanisms and Behavior of the Albino Rat."
- Bleke, Robert Charles, A.B., Swarthmore College.  
Dissertation: "Reward and Punishment as Determiners of Reminiscence Effects in Schizophrenic and Normal Subjects."
- Boynton, John O'Hara, A.B., M.A., Florida State College for Women.  
Dissertation: "A Theory of the Poor White: a Study in Race Relations."
- Bramlette, Carl Allen, Jr., B.S., Presbyterian College.  
Dissertation: "Some Relationships Between the Self-Concept, the Thematic Apperception Test, and Personality Adjustment."
- Brandis, Royall, A.B., Richmond College; A.M., Duke University.  
Dissertation: "Some Factors Affecting American Cotton Exports, 1929-1948."
- Brown, Joshua Robert Calloway, A.B., A.M., Duke University.  
Dissertation: "Histological Studies on the Adult of the Common Chigger."
- Bryant, Ralph C., B.S., Yale University; M.F., Yale School of Forestry.  
Dissertation: "The Economic Feasibility of a Permanent Pulp and Paper Industry in Central Colorado."
- Burkus, John, B.S., Rutgers University.  
Dissertation: "Kinetic Investigation of the Acylation of Methyl Ketones with Esters."
- Byers, Gordon Cleaves, A.B., University of Michigan.  
Dissertation: "Class Number for Quadratic Forms Over GF [q, x]."
- Caoun, Alfred Orville, A.B., Southwestern at Memphis; A.M., Duke University.  
Dissertation: "The Constitutional Thought of Wiley Rutledge."
- Carmean, Willard Handy, B.S., Pennsylvania State College; M.F., Duke University.  
Dissertation: "The Effect of Certain Physical Soil Properties and Topography on the Site Quality of Douglasfir in Southwestern Washington."
- Carroll, Kenneth Lane, A.B., Duke University; B.D., Duke Divinity School.  
Dissertation: "Scripture and the Early Church."
- Castor, Charles Robert, B.S., Baylor University; A.M., Duke University.  
Dissertation: "A Polarographic Study of Certain AZO Compounds."
- Cherry, Leonard Victor, B.S., College of the City of New York.  
Dissertation: "The Kerr Effect and Physical Properties of Some Aromatic Fluorine Compounds."
- Christison, Isabel B., B.A., University of Minnesota; A.M., Duke University.  
Dissertation: "The Antifungal Activity of Some Organic Compounds Against Fungi Pathogenic for Man."
- Cohen, David V., B.S., College of the City of New York.  
Dissertation: "Parathyroid Hormone and the Renal Excretion of Phosphate."
- Colvin, Ralph Whitmore, B.S., Lawrence College.  
Dissertation: "An Experimental Analysis of Attitudinal Determinants Underlying Behavior to Color Stimuli in Psychoneurotic Subjects."
- Cox, Gene Spracher, B.S., Duke University; M.F., Duke University.  
Dissertation: "The Effect of Soil Properties on the Site Index of Loblolly Pine (*Pinus Taeda* L.) in the Southeastern Coastal Plain."
- Dratz, Arthur Frederick, A.B., Duke University.  
Dissertation: "Renal Phosphate and Carbohydrate Metabolism."
- Dunn, William Lawrence, Jr., B.S., Lynchburg College.  
Dissertation: "Changes in the Visual Discrimination Behavior of Schizophrenic Subjects as a Function of the Meaning Content of the Stimulus."
- Edgerton, Jesse Wilbert, B.S., Guilford College; M.A., University of Florida.  
Dissertation: "A Study of the Effects of Prolonged Psychological Stress Upon Blood Pressure in Rats Predisposed Toward Hypertensive Levels by Early Acute Choline Deficiency."
- Gibbs, Norman Brantley, B.A., Southwestern at Memphis; B.D., Louisville Presbyterian Theological Seminary.  
Dissertation: "The Problem of Revelation and Reason in the Thought of Charles Chauncy."
- Girdner, John Byron, B.A., M.A., University of Utah.  
Dissertation: "An Experimental Analysis of the Behavioral Effects of a Perceptual Consequence Unrelated to Organic Drive States."
- Gitlin, Emmanuel M., B.A., Texas Christian University; B.D., Duke Divinity School.  
Dissertation: "Chronology of the Ancient Near East: Principles of Research."

- Goldstone, Sanford, B.S., College of the City of New York.  
Dissertation: "Flicker Fusion Measurements and Anxiety Level."
- Green, Claud Bethune, A.B., M.A., University of Georgia.  
Dissertation: "John Trotwood Moore, A Tennessee Man of Letters."
- Green, Irving, B.A., New York University; M.S., Fordham University.  
Dissertation: "An Electrotitrimetric Method for the Study of ATPase Activity in Myosin Systems."
- Halde, Carlyn Jean, B.A., M.A., University of California.  
Dissertation: "The Relation of Nutrition to the Growth and Morphology of Trichophyton Concentricum Blanchard, 1896."
- Hamilton, Thomas Theodore, A.B., Central Missouri State College; A.M., Duke University.  
Dissertation: "The Impact of the Shanghai Incident of 1932 Upon the United States and the League of Nations."
- Hardin, Hilliard, A.B., A.M., Duke University.  
Dissertation: "Studies of Quantitative Differential Agglutination and Quantitative Differential Hemolysis of Human Erythrocytes."
- Hartz, Edwin Ruben, A.B., Southwestern Missouri Teachers College; A.M., B.D., Duke University.  
Dissertation: "The Role of the Institute in the Family-Life Education Movement."
- Hill, Robert Matteson, A.B., Cornell University.  
Dissertation: "Line, Line Width and Zeeman Studies of Oxygen Absorption Spectra."
- Hutt, Paul Jonas, B.S., A.M., Columbia University.  
Dissertation: "Rate of Bar-Pressing by the White Rat During Periodic Reinforcement as a Function of the Quality and Quantity of the Food Reward."
- Hyland, Kerwin Ellsworth, Jr., B.S., Pennsylvania State College; M.S., Tulane University.  
Dissertation: "Studies on an Ectoparasitic Mite of the Genus *Hannemania* (Acarina: Trombiculidae)."
- Jackson, William Thomas, B.S. in Ed., Ohio State University; M.S., University of Tennessee.  
Dissertation: "The Relative Importance of Factors Causing Flooding Injury of Plants and the Role of Adventitious Roots in Recovery."
- King, William Connor, A.B., Denison University.  
Dissertation: "Microwave Spectroscopy in the Region From One to Two Millimeters."
- Kohn, Edward Maurice, B.S., College of the City of New York.  
Dissertation: "The Kerr Constants of Some Aromatic Compounds in Benzene Solutions."
- Lawton, Robert Oswald, Jr., A.B., A.M., Duke University.  
Dissertation: "Stock Comic Characters in Shakespeare, A Study of Their Relation to the Plot."
- Loveland, Clara Olds, A.B., Wellesley College; A.M., Columbia University; B.D., Berkeley Divinity School.  
Dissertation: "The Problem of Achieving Agreement on the Form of Government of the Protestant Episcopal Church in the United States of America, 1780-1789."
- Manly, Jethro Oates, B.S., William and Mary College.  
Dissertation: "Marine and Brackish Water Diatoms of Beaufort, North Carolina."
- McClurkin, Douglas Charles, B.S.F., University of Georgia; M.F., Duke University.  
Dissertation: "Soil and Climatic Factors Related to the Growth of Longleaf Pine in the Gulf Coastal Plain."
- Moudy, James Mattox, B.A., B.D., Texas Christian University.  
Dissertation: "Bossuet and the Protestants: A Chapter in the Seventeenth-Century Struggle for Religious Allegiance in France."
- Mowshowitz, Israel, B.A., Yeshiva College.  
Dissertation: "The Study of the Perception of Jewish and Non-Jewish Faces as it is Related to Prejudice."
- Nease, Felton Reece, B.A., M.S., University of Oklahoma.  
Dissertation: "Contamination by Fission Products and Its Effects on Plants Growing in the White Oak Creek Area, Tennessee."
- Parrish, Robert Guy, B.S., University of Wisconsin.  
Dissertation: "The Preparation, Hydration and Molecular Kinetic Properties of Myosin."
- Powell, William Allan, B.S., Wake Forest.  
Dissertation: "Fluorometric Methods of Fluoride Determination."
- Puterbaugh, Walter H., Jr., A.B., Duke University.  
Dissertation: "Synthesis of Beta-Hydroxy Compounds and Nitro Ketones. Influence of Metallic Cation in Aldol Condensation and Other Reactions."
- Reveley, Walter Taylor, A.B., Hampden-Sydney; B.D., Union Theological Seminary.  
Dissertation: "A Christian Critique of Modern Liberal Democratic Theory as Reflected in the Writings of Jacques Maritain, A. D. Lindsay and Reinhold Niebuhr."
- Richter, Peyton Elliott, A.B., Mercer University; M.A., Florida State University.  
Dissertation: "The Metaphysical Foundations of Jordan's Aesthetics."
- Schaller, Howard G., A.B., Duke University; M.A., Northwestern University.  
Dissertation: "The Effects of Transfer Payments on Differences in State per Capita Incomes, 1929, 1939, and 1949."
- Scott, Harley Augustus, Jr., A.B., Duke University.  
Dissertation: "The Empirical Assessment of Self Acceptance."



- Shepard, Maurice Charles, B.S., M.S., University of Wisconsin.  
Dissertation: "The Significance of Pleuropneumonia-Like Organisms in Non-Gonococcal Urethritis."
- Taylor, George Aiken, A.B., Presbyterian College; B.D., Columbia Theological Seminary.  
Dissertation: "John Calvin, The Teacher. The Correlation Between Instruction and Nurture Within Calvin's Concept of Communion."
- Tyczkowski, Edward Albert, B.S., Brown University.  
Dissertation: "A New Type of Direct Fluorination Reactor and the Mild Fluorination of Carbon Disulfide and Methyl Sulfide."
- Wiebe, Herman Henry, B.A., Goshen College; M.A., State University of Iowa.  
Dissertation: "A Study of Absorption and Translocation of Radioactive Isotopes in Various Regions of Barley Roots."
- Worsham, James Essex, Jr., B.S., University of Richmond; M.S., Vanderbilt University.  
Dissertation: "The Electric Moments and Kerr Effects of Some Monosubstituted Acid Amides."
- Zahner, Robert, B.S., M.F., Duke University.  
Dissertation: "The Effect of Soil Properties on Site Quality for Loblolly Pine in the Gulf Coastal Plain."

## ED.D. DEGREE

- Klein, Raymond Louis, B.S., Milwaukee Teachers College; M.A., State University of Iowa.  
Dissertation: "A Critical Analysis of School Codes."
- Miller, William Starr, B.S., M.S., University of Georgia.  
Dissertation: "Some Problems of Teaching in Public Schools as Confronted by Teachers and Student Teachers, with Reference to the Teacher Education Program at Bessie Tift College."
- Newcomer, Richard Seyler, B.A., Ursinus College; A.M., Duke University.  
Dissertation: "The Administration of the Extension Courses of the University of Maryland at Harmon Air Force Base in Newfoundland, 1951-1952."
- Walton, Wesley Wills, B.S., Glassboro State Teachers College; M.Ed., Duke University.  
Dissertation: "The Utilization of Armed Forces Training Research in Army Training Activities."

## HONORARY DEGREES

*Doctor of Laws*

Allen, George G. Wannamaker, William H.

## COMMISSIONS IN UNITED STATES NAVY AND UNITED STATES MARINE CORPS

## Ensign, United States Navy

Armstrong, James Calvin	Luck, Jean Magill
Benson, Bruce Welsh	Montgomery, Douglas Gale
Berney, Norman Adam	Mylrea, Bruce William
Blizard, John Walter Frederick, Jr.	Ost, John William Philip
Brown, Bruce MacDonald	Schaffer, William Ronald
Bynum, Frank Bundy, Jr.	Schieber, Richard M.
Clark, Henry B., II	Spofford, Donald Edward
Climenson, William Douglas	Stark, Lawrence Wendell
Coleman, Robert Albert	Stuart, Eugene Washington, Jr.
Eure, Thomas Duncan	Taylor, George F., Jr.
Fox, Randolph Val	Tucker, Royster Milton
Gordon, Bruce Joel	Welchman, Charles Barret
Hamilton, James William	Westervelt, Sheldon
Henry, Granville Conner, III	Wilson, Walter Quinten
Huffer, Nicholas Robinson	Winfield, Gordon Telfair, Jr.
	Zapf, Brenda, USNR (W)

## Second Lieutenant, United States Marine Corps

Brooks, Thomas Donald Rovegno, Donald Cowie

Ratliff, Dale

## COMMISSION OF SECOND LIEUTENANT, UNITED STATES AIR FORCE

Alexander, Frank Hugh, Jr.	Garrett, John William, III
Aronberg, Harold	Getz, Robert Samuel
Atkins, James Harrison	Gould, Donald Wehmann
Barton, Gerald J. deMacedo	Greer, Dewey Hobson, Jr.
Bauman, S. Richard	Hobby, Lovic Worth
Bixby, Richard Glenn	Howe, William Albert, Jr.
Cardozo, Joseph Lopez, Jr.	Johuson, Richard Allen
Carver, George Wilson	Jones, Charles Sherfy
Chapman, William Ennis	Klein, Arthur Jerome
Claxton, Richard Allen	Kulpan, James Neil
Coleman, John W.	Lassiter, Vernon Clarke, Jr.
Denunzio, Don	Lineberger, Joe Glenn
Dewan, Edmund Maurice, Jr.	Long, Sherman Edgar, Jr.
Dickey, Carl O., Jr.	Maddox, Clyde O., Jr.
Edwards, Geoffrey Bruce Owen	Maxwell, John W.

Michael, Robert Frederick, Jr.  
Miller, Thomas Templin  
Neumeister, Leslie Leroy  
Nial, George Anderson  
Rosenberg, John Meinhardt  
Schafroth, Donald Milton  
Schafroth, Douglas Werner  
Scheffer, Miles Howard

Shaw, John Daniel, Jr.  
Smith, V. Courtlandt, II  
Strickland, Donald Bennett  
Tarnow, Lawrence Millard  
TenHouten, Edward William  
Weiss, Alfred Hans, Jr.  
Wilson, Carroll Vaughn

COMMISSION OF FIRST LIEUTENANT, MEDICAL CORPS, UNITED STATES ARMY AND  
UNITED STATES AIR FORCE

United States Army

Bryant, Gerald Don Nelson, Jr.  
Cain, Frank Coral, Jr.  
Edwards, Ian Keith  
Fowler, William Robert

Kent, Alfred Henry  
Overton, Dolphin Henry, Jr.  
Woodbury, Philip Stephen

United States Air Force

Glenn, James Francis

Sager, Samuel Ott

The following degrees were awarded September 1, 1952:

A.B. DEGREE

Anderson, Samuel Gober  
Bacon, Mary Anne  
Bane, Allan  
Bauman, Lawrence Albert, III  
Blanck, Charles Kenneth  
Bland, Bruce Francis  
Bobbitt, Joseph Irvin  
Bright, James Golden, Jr.  
Brill, William  
Brooks, Eugene Clyde, III  
Campbell, Addie Lois  
Cohoon, Patricia Julia  
Corrigan, Eugene Francis  
Cox, Ernest Howard  
Cox, John William  
Crawford, Frank Teller  
Deal, C. Pinckney, Jr.  
DeLong, David D.  
Dunson, John Clark  
Everitt, Jo Anne  
Goldstein, Garry Arnold  
Grisso, John Kennedy  
Gwinn, Charles Leslie  
Hager, Dudley Pierce  
Hahn, Raymon Jenkin  
Hanson, Elmer D.  
Hanson, William Robert  
Frank, Miguel Enrique Herrero  
Hussey, William Howland  
Ivey, Benjamin Carr  
James, Carl Clifton  
Jernigan, Julius Malcom  
Kennedy, Horton Parmelee, Jr.  
Krieger, Walter Frank  
Krynski, Elizabeth Girardet

LeValley, Victor Ritzendollar, Jr.  
Lyon, Lucy Gay  
Manegan, Warren Richard  
Martin, David Cooper  
McBride, Elsa Tice  
McLoney, Thorne Clay  
McNamara, Thomas Neal  
Nelson, Ronald Prescott  
Norton, Dudley Marshall  
Nylen, David Walker  
Padgett, Robert L.  
Pappas, Nancy Lee  
Perry, Thomas R.  
Piephoff, Zachary Taylor, Jr.  
Pischel, Richard Anton  
Pitman, John Mathews, Jr.  
Plimpton, Hollis Winslow, Jr.  
Reynolds, Joseph Charles  
Rose, Louis Langford, Jr.  
Schachter, Jerome Miles  
Schwarz, Frederick Kipp  
Sims, Betty Kathleen  
Snyder, Harry M., Jr.  
Steffey, Fred Henry  
Turner, Malcolm Elijah, Jr.  
Wagner, Robert William  
Walter, Amy B.  
Warren, Harold. Flack, Jr.  
Watkins, Charles Eugene, Jr.  
Westhall, James Edmund  
Williams, John Charles  
Williams, Martin George, Jr.  
Wilson, Colon Hayes, Jr.  
Wilson, Paddy Ann  
Zimmerman, James Lawrence

B.S. DEGREE

Adams, Walter Isaac

Nixon, Edward Calvert

B.S. DEGREE IN NURSING EDUCATION

Campbell, Mary Milton  
Egan, Louise Caroline

Garmon, Betty Lee  
Kira, Leona Hawkins

B.S. DEGREE IN CIVIL ENGINEERING

Haukins, William E., Jr.

B.S. DEGREE IN ELECTRICAL ENGINEERING

Batten, Emmett LeGrey

Marple, Thomas Pankey

B.S. DEGREE IN MECHANICAL ENGINEERING

Barnes, Donald A.  
Lee, Hugh Y.  
Reeves, Jerry Healard, III

Thompson, Richard F.  
Tollefsen, Robert

## DUKE UNIVERSITY

## DIPLOMA IN NURSING

Parker, Athelle Coleman

Austin, Tollie Edward, Jr.  
 Craft, Stanley Irwin  
 Driskell, Martha Virginia  
 Hrubes, Helene Anna  
 Nelson, Herman Berg

## M.ED. DEGREE

O'Shinski, Wanda Henriette  
 Raebek, Charles Arlington  
 Simpson, Lillian Norris  
 Webb, Margaret Juanita

## A.M. DEGREE

Abshire, Charles William  
 Bailey, Phoebe Crane  
 Bowden, Elbert Victor  
 Vega, Gloria de la  
 Dull, Frances Mae  
 Hamrick, James Lehman  
 Hartman, Joan Edna  
 Hiers, Billie Jean

Hudson, Virginia La Frage  
 Joyner, Weyland Thomas, Jr.  
 Kaufman, Willis Mast  
 Lambert, Sarah Margaret  
 Raup, William Wagner  
 Reynolds, Norman Lee  
 Thompson, Virginia Mary  
 Ziolkowski, Theodore Joseph

## LL.B. DEGREE

Geyer, William Glenn, Jr.

Van Anda, Jack Nicholas

## HONORS AND PRIZES

*Summa cum laude*

JUNE 1, 1953

Brooks, Frederick Phillips, Jr.  
 Dawson, Mary Howland  
 Lake, Eleanor Betty  
 Erwin, Albert Rich

Chapman, William Ennis, III  
 Divine, Elinor Faxon  
 Ritch, James Earle, Jr.  
 Spivey, Robert Atwood

*Magna cum laude*

SEPTEMBER 1, 1952

Padgett, Robert Louis

Cohon, Patricia Julia

JUNE 1, 1953

Wright, William Vaughn  
 Curley, John Edward  
 Harter, Barbara Alice  
 Roseborough, Virginia Lee  
 Young, Bettie Anne  
 Coppala, George Harrill  
 Hurst, Nancy May  
 Evans, Barbara Lee  
 Clark, Henry B., Jr.  
 Levenson, Bernice  
 Dewan, Edmond Maurice, Jr.

Graham, Alice Virginia  
 Gunderson, Ann Kathryn  
 Climenon, William Douglas  
 DePass, Nancy Witherspoon  
 Markee, Shirley June  
 Sward, Gilbert Leinbaugh  
 Murchie, Muriel Elsie  
 Sarles, Frederick Williams, Jr.  
 Bixby, Mary Louise  
 Fisher, Robert Warren  
 Mylrea, Bruce William

## HONORS IN DEPARTMENTS AND SCHOOLS

## DEPARTMENT OF AIR SCIENCE

## DISTINGUISHED MILITARY GRADUATES

Chapman, William Ennis  
 Getz, Robert Samuel  
 Hobby, Lovic Worth  
 Howe, William Albert, Jr.  
 Lassiter, Vernon Clarke, Jr.  
 Lineberger, Joe Glenn

Neumeister, Leslie Leroy  
 Rosenberg, John Meinhardt  
 Schafroth, Donald Milton  
 Schafroth, Douglas Werner  
 Wilson, Carroll Vaughn

## SCHOOL OF LAW

*Order of the Coif*

Chambers, Julian Horne, Jr.  
 Hudspeth, George Lee

Isley, Hugh Galloway, Jr.

## Graduated "With Distinction"

Cox, Robert Doyle  
 Chambers, Julian Horne, Jr.  
 Hudspeth, George Lee

Isley, Hugh Galloway, Jr.  
 Oshiro, Robert Chosei  
 Wagner, William Dean

*Willis Smith Prize*—Chambers, Julian Horne, Jr.

## SCHOOL OF MEDICINE—Election to Alpha Omega Alpha, Honorary Medical Fraternity

Bacos, James Michael  
 Bell, William Reed  
 Chittum, John Raymond  
 Evans, William Canfield, Jr.  
 Flanagan, John Francis  
 Gleason, William Lounsbury  
 Glenn, James Francis

Miller, Augustus Taylor, Jr.  
 Parkerson, George Robert, Jr.  
 Perry, William John  
 Stickel, Delford LeFev  
 Terrell, Sara Eldora Haworth  
 Winslow, Francis Edward, Jr.

SPECIAL HONORS AND PRIZES

*The Robert E. Lee Prize*—  
 Carey, John Jesse  
*Anne Flexner Memorial Award in Creative Writing*—  
 Rae, Ruth P.  
*Freshman English Prize*—  
 Caviness, Verne S.  
 Davis, Elizabeth  
 Patton, Susannah  
*Julia Dale Prize in Mathematics*—  
 Woodlief, Guy Forrest, Jr.  
 Hart, Norman James  
*Woman's Panhellenic Scholarship*—  
 Britt, Joy Wood  
 Dundas, Rosemary  
*Alice M. Baldwin Scholarship Award*—  
 Britt, Joy Wood  
 Cathey, Grace Elizabeth  
 Chappell, Betty Ruth  
 Plummer, Kathryn  
 Ritch, Julia Ann  
 Smith, Nancy Lee  
*William Senhauser Prize*—  
 Thomas, Edwin Roosevelt, Jr.  
*Erasmus Club Prize in the Humanities*—  
 Sykes, Richard Lee  
*The Milnor Prize*—James Ray Suit  
*Friends of the Duke University Library Awards*—  
 Price, Reynolds  
 Doebler, John  
 Self, Margaret  
*Alpha Kappa Psi Scholarship Award*—  
 Curley, John Edward  
*Delta Delta Delta Scholarship Award*—  
 Baldwin, Suzanne

*North Carolina Association of Certified Public Accountants Award*—  
 McFarling, Harry Montgomery  
*Phi Lambda Upsilon Award*—  
 Chesnut, Donald B.  
*Angernon Sydney Sullivan Awards*—  
 Carey, John Jesse  
 Wilson, Robert North  
*The Florence Nightingale Alumnae Plagues*—  
 Reynolds, Norma Hurley  
 Romano Joanna Phyllis  
*Bagby Award in Pediatrics*—  
 Dees, Doris Jean (Nurse)  
 Stanley, Gordon Douglas (Intern)  
*The Moseley Award*—  
 Miller, Joan Frances  
*Borden Undergraduate Research Award in Medicine*—  
 Parkerson, George Robert, Jr.  
*The Mosby Prizes*—  
 Evans, William Canfield, Jr.  
 Flanagan, John Francis  
 Gleason, William Lounsbury  
 Glenn, John Francis  
 Parkerson, George Robert, Jr.  
*American Academy of Dental Medicine Award*—  
 Meiselman, Rudy Karmus  
*American Legion Award*—  
 Fowler, William Robert  
*R.O.T.C. Certificate of Meritorious Leadership-Achievement*—  
 Bryant, Gerald Don Nelson, Jr.  
*Sigma Xi Awards*—  
 Undergraduate Paper—Yengst, William C.  
 Master's Thesis—Parkerson, George R., Jr.  
 Doctoral Thesis—Castor, Charles Robert

TRINITY COLLEGE

FRESHMAN HONORS

Students listed according to average

Ward, Bowden W.  
 Coltrane, George A.  
 Harrison, William T.  
 Mayhew, Kenneth E.  
 Harbison, James W.  
 McCollough, Newton C.  
 Alexander, Clyde V.  
 Caviness, Verne S.

Robinson, Joseph D.  
 Little, William A.  
 Brubaker, Leonard H.  
 Maxson, Myron F.  
 Mejo, Robert W.  
 Kauffman, Bruce W.  
 Nordan, Robert W.  
 Crutchfield, Marvin M.

SOPHOMORE HONORS

Postma, Herman  
 Chilton, Scott W.  
 Woodlief, Guy F.  
 Price, E. Reynolds  
 Rogers, Max G.  
 Winter, Thorne S.  
 Barnhardt, Luther E.

Dickson, Ronald W.  
 Johnson, Paul A.  
 Cogan, Thomas J.  
 Schimmel, David M.  
 Huston, Tom  
 Baker, Charles Clarke, Jr.  
 Fulcher, John R.

JUNIOR HONORS

Cole, Alexander T.  
 Crouce, Paul C.  
 Farrell, Thomas E.  
 Robinson, Russell M.  
 Fike, Francis G.  
 Chestnut, Donald B.

Graham, Thomas C.  
 Fuller, John Peyton  
 Mason, Dean T.  
 Neuhaus, Francis C.  
 Singletary, Richard L.

THE WOMAN'S COLLEGE

FRESHMAN HONORS

Davis, Sylvia Annette  
 Harrell, Ruth Flinn  
 Ray, Janet Patsy  
 Pfohl, Sarah Marie  
 Dinwoodey, Judith Austin  
 Eller, Elizabeth Ann  
 Saunders, Nancy Elizabeth  
 Eyster, Mary Elaine

Williams, Mary Lynn  
 Whitehurst, Barbara Anne  
 Nettles, Barbara Ann  
 Rhine, Rosemary  
 Kirkpatrick, Jane  
 Watson, Cora Rebecca  
 Trosdal, Maria Carter

## DUKE UNIVERSITY

## SOPHOMORE HONORS

Culbreth, Carolyn Elizabeth  
 Thacker, Alexandra Louise  
 Hoke, Carol Ann  
 Yost, Etha Rebecca  
 Wright, Elizabeth Anne  
 Holton, Ann Coffeen  
 Smith, Suzanne

Dalton, Sally Gossett  
 Corbeels, Barbara Louise  
 Brown, Patricia Ann  
 Schultz, Emily Faye  
 Meffert, Molly Lou  
 Alexander, Jean Bassett  
 Getaz, Elizabeth

## JUNIOR HONORS

Skorvaga, Margaret Ann  
 Bowers, Charlotte Moore  
 Gray, Aurelia Elizabeth  
 Knickerbocker, Fay Ann  
 Page, Nina Elizabeth  
 Covington, Anne Paschall  
 Cumming, Jane Collier  
 Dutoit, Audrey Louise  
 Bemus, Jane Elizabeth  
 Choate, Fay Mitchell

Northington, Nancy Clark  
 Lane, Barbara  
 Power, Carrel Ann  
 Salkover, Joan Natalie  
 Bullard, Mary Ann  
 Lewis, Mary Jane  
 Cathey, Grace Elizabeth  
 Armbruster, Janet  
 Watkins, Margaret Louise  
 Ritch, Julia Ann

## COLLEGE OF ENGINEERING

## FRESHMAN HONORS

Ward, Bowden Wilson

Little, William Albert

## SOPHOMORE HONORS

Hart, Norman James  
 Parkerson, John Beveridge  
 George, Rhett Truesdale

Olds, Ray Mortimer  
 King, Norwood Jack  
 Griswold, Lyman W.

## JUNIOR HONORS

Harmount, Thomas Herbert  
 Block, Norman G.

Roberts, John Edward  
 Yengst, William C.



# Roll of Students



## *Trinity College*

### FRESHMAN CLASS

(\* Transferred from Trinity College to College of Engineering;  
† Transferred from College of Engineering to Trinity College)

Abernathy, Charles Clarence, Jr.	Lumberton, N. C.
Abernathy, Frank Henry, Jr.	Portsmouth, Va.
Abernethy, Robert Glenn	Hickory, N. C.
Ackerman, Bruce Milton	Malverne, L. I., N. Y.
Addison, Winnifred A.	Toccoa, Ga.
Agnese, Henri J.	Palm Beach, Fla.
Agnor, Richard Wood	Atlanta, Ga.
Albertson, Thomas H.	High Point, N. C.
Aldridge, Bryant Taylor	Kinston, N. C.
Aldridge, Willis H., Jr.	Durham, N. C.
Alexander, Clyde Vinson	Milan, Tenn.
Alexander, Jerry Marvin	Canton, N. C.
Alexander, Joseph Culbreth, Jr.	Kinston, N. C.
† Alexander, Robert B., Jr.	Greensboro, N. C.
Alford, Bobby	Hyman, S. C.
Allender, George Roberts	Macon, Ga.
Andrews, James Marshall	Roanoke Rapids, N. C.
Andrews, Wesley Thompson	Reidsville, N. C.
Appleton, Richard Francis	Bergenfield, N. J.
Arn, Roy Dale	Dayton, Ohio
Artus, Ross Hathorn	Enosburg, Vt.
Ashworth, Halbert Eugene	Charleston, W. Va.
Auwaerter, John Floyd	Fremont, Neb.
Axtell, Donald Carey	Waverly, N. Y.
Baker, Ford Adams	St. Louis, Mo.
Barham, Sidney Johnson	Newport News, Va.
Barlow, Bobby Bernard	Essex, N. C.
Barnes, William Howard	Forest Hills, N. Y.
Barranco, Frank Salvatore	Baltimore, Md.
Barry, Ralph John	Atlanta, Ga.
Bartholomew, Charles S.	Durham, N. C.
Bartunek, Clarence Jerome	Shaker Heights, Ohio
Bateman, Larry Neal	Greensboro, N. C.
Bates, John Dodd	Meadville, Pa.
Beard, John Quincy	Erwin, N. C.
Becker, Charles Nachman	Newport News, Va.
Belk, Harold Dean	Pageland, S. C.
Belmont, Joseph Elliott	Philadelphia, Pa.
† Benjamin, Emanuel Victor	New Orleans, La.
Bennett, Herd Leon	Eaton, Ohio
Bennett, Richard Holzman	Durham, N. C.
Bentz, Carl Edmund	York, Pa.
Berry, Lester Worthen	Ayer, Mass.
Berry, Norman Frank	Ventnor, N. J.
Biggers, William Henry	Savannah, Ga.
Bilas, Richard Allen	Teaneck, N. J.
Billings, Donald Roy	North Wilkesboro, N. C.
Birchfield, Jesse J., Jr.	Elizabethton, Tenn.
Bird, Adrian	Washington, D. C.
Bishop, Wallace Bond	St. Petersburg, Fla.
Black, Harold Thomas	Durham, N. C.
† Black, William Lawrence	Charlotte, N. C.
Blackburn, Richard Childs, Jr.	Winston-Salem, N. C.
Blackburn, Thomas E.	West Upton, Mass.
Blair, James II.	High Point, N. C.
Blaney, Bernard F.	Newark, Del.
Blizard, Eugene Barié	Jenkintown, Pa.
Blodgett, George S.	West Palm Beach, Fla.
Boehle, William Carl	Meriden, Conn.
Bohnenberger, Ralph Eugene	Jamaica, N. Y.
Boswell, Eugene D.	Durham, N. C.
Botnick, Marvin Z.	Hattiesburg, Miss.

†Bottoms, Arnold Ray  
 Bottoms, Claude Bryant  
 Bowers, Paul Chadwick  
 Boyette, Joseph Greene  
 Brady, Philip Emmons  
 Brailsford, George B.  
 Branch, Dewitt W.  
 Brandon, Donald Joe  
 Brau, Richard Charles  
 Braun, David  
 Breen, Peter Gordon  
 Brick, Justus Clark, Jr.  
 Brideweser, William Buhmair  
 Brown, William McCormick  
 Brubaker, Leonard Hathaway  
 Bryant, Corrone Enoche  
 Burke, John Joseph  
 Burt, Johnny Joseph, Jr.  
 Butler, John Dietrich  
 Callier, James Thomas, Jr.  
 Canady, Donald Raymond  
 Cann, Alexander Lawrence  
 Cantor, Richard Lester  
 †Carlisle, Richard M., Jr.  
 Carnegie, Henry Carter  
 Carson, James Holmes  
 Carter, Robert Glen  
 Carzoo, Dean Michael  
 Cassells, Joseph S.  
 Cato, Phillip Carlyle  
 Caviness, Verne S.  
 Chadwick, Gerald Alvin  
 Chamberlain, Whitney Adelbert  
 Chaney, Elmo Burnell  
 Chapman, Barry Steele  
 Cherry, Paul Wyman  
 Chitty, Malcolm Reid  
 Clark, James Norwood  
 Clark, Kenneth L.  
 Clark, Morris Clifton  
 Clayton, Wilton Earl, Jr.  
 Clemente, Joe, III  
 Clevenger, Robert William  
 Clift, John White  
 Coates, Garland Wayland  
 Cofino, José Ernesto  
 Cogan, John Patrick  
 Cohen, Joseph Pines  
 Cole, William John  
 Coleman, Gordon Calvin  
 Colerick, Miles Harry  
 Collier, Philip Forsyth  
 Coltrane, George Allen  
 Conner, Harry Gene  
 †Copper, Walter Logan, Jr.  
 Corey, Marshall Thomas  
 Coughlin, Donald O'Brien  
 Coulter, Homer Preston, Jr.  
 Crabbe, Richard  
 Crabbe, Joseph K.  
 Creadick, John Dennis  
 Crossingham, C. Edward  
 Cruise, Charles Edward  
 Crutchfield, Marvin Mack  
 Dail, Robert Stevens  
 Dalton, Bruce Keegan  
 Davidson, John Milton  
 Davis, Charles Williams  
 Davis, William Remaley  
 Day, Jerry Beaman  
 Deans, William Chappell  
 Derba, L. Franco  
 Dickens, Robert Gordon  
 Dixon, Henry Bryan, II  
 Dodd, William H.  
 Doherty, Martin William  
 Downey, Fred McEwen, Jr.  
 Dukes, Charles A., Jr.  
 Duncan, James Vernon  
 Dunkin, William Wesley, III  
 Dutcher, Allan Mead

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 Macon, N. C.  
 Charlotte, N. C.  
 Rocky Mount, N. C.  
 Shaker Heights, Ohio  
 Palm Beach, Fla.  
 Lumberton, N. C.  
 Cramerton, N. C.  
 Darien, Conn.  
 Elsmere, N. Y.  
 Quincy, Mass.  
 Medford, N. J.  
 Navarre, Ohio  
 Upper Marlboro, Md.  
 Macon, Ga.  
 Williamston, N. C.  
 Litchfield, Conn.  
 Enfield, N. C.  
 Redbank, N. J.  
 Atlanta, Ga.  
 Fayetteville, N. C.  
 Savannah, Ga.  
 Venter City, N. J.  
 Montclair, N. J.  
 Palm Beach, Fla.  
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 Lyons, Ill.  
 Cedarville, Ohio  
 Chester, S. C.  
 Charlotte, N. C.  
 Raleigh, N. C.  
 Leonia, N. J.  
 Johnstown, N. Y.  
 Westport, Conn.  
 York, Pa.  
 Norfolk, Va.  
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 Cairo, Ga.  
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 Tampa, Fla.  
 McConnellsburg, Pa.  
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 Halifax, Va.  
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 Oxford, Ohio  
 Brooklyn, N. Y.  
 Whiteville, N. C.  
 Rockville, Md.  
 Utica, N. Y.  
 Middleburg, Va.  
 High Point, N. C.  
 Oak Ridge, Tenn.  
 Trenton, N. J.  
 Tarrytown, N. Y.  
 Forty-Fort, Pa.  
 Newton, N. C.  
 Bethlehem, Pa.  
 Chesterland, Ohio  
 Aiken, S. C.  
 Mt. Airy, N. C.  
 Baltimore, Md.  
 Durham, N. C.  
 Goldsboro, N. C.  
 Westbury, N. Y.  
 Miami, Fla.  
 Beaver, Pa.  
 Pittsburgh, Pa.  
 North Wilkesboro, N. C.  
 Richmond, Va.  
 Genoa, Italy  
 Weldon, N. C.  
 Mebane, N. C.  
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 Pelham, N. Y.  
 Washington, D. C.  
 Durham, N. C.  
 River Forest, Ill.  
 Charlotte, N. C.  
 Bound Brook, N. J.

- Eagie, James D.  
 Eckman, Paul Bates  
 Edmonds, John Robert  
 Eichner, William Edward  
 Eiteman, Dean Spencer  
 †Ellis, Richard M., III  
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 English, James S., III  
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 Falls, Ronald Marshall  
 Farrow, Donald Craig  
 Feman, Morris Joseph  
 Ferguson, John Richard  
 Ferrell, Henry Clifton  
 Fesperman, William D.  
 Finch, Harold Eugene  
 Finley, Frank Alfred, Jr.  
 Fischer, Robert Wallace  
 Fish, Konrad Karl  
 Fletcher, Robert Montgomery  
 Flippin, Robert Samuel  
 Flynn, Richard Olney  
 †Forbes, James, Jr.  
 Forbes, Redwell Kay  
 Forehand, William E., Jr.  
 Forrest, Charles Donald  
 Fox, Alvin Benis  
 †Foxworth, David Holmes  
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 Galinsky, M. David  
 Gammans, Dwight Willard  
 Garcia, Edgardo Arturo  
 Gardner, James Billy  
 Garner, Robert Stewart  
 Garrity, James F.  
 Gaston, Paul Kenneth  
 Gault, Fred Johnson  
 Gelula, Jerome Donald  
 Gibbons, Robert Herbert  
 Gibbs, Frank Herbert  
 Gibbs, Robert Harrison  
 Gibson, Gerald Warren  
 †Gillerist, Thomas James  
 Glasow, James Marvin  
 Goldberg, Donald  
 Gordon, Albert Claude  
 Grace, Gerald E.  
 Graham, William Thomas  
 Grant, Henry Curtis  
 Green, Robert  
 Greenblatt, Nathaniel Lande  
 Greene, Donald Lee  
 Greenwood, J. Richard  
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 Griffin, Joseph Marion  
 Grimes, Douglas Preston  
 Groover, Gordon Lewis  
 Gruman, David T.  
 †Gumb, Albert M.  
 Gurley, George Morris  
 Guy, Donald James  
 Haddad, Edwin A.  
 Hadley, Robert Carol  
 †Hall, Lorne F.  
 Hall, Ronnie Lee  
 Hamon, John Ashton  
 Hampson, Henry Forrest  
 Hamrick, Grady Lee  
 Hanner, Henry David  
 Harbison, James Wesley  
 Hardin, Jabie S.  
 Hare, William M.  
 Hark, Donald Lee  
 Harrison, Howard Courtenay  
 Harrison, William Thomas  
 Hartman, David Downs  
 Haslem, John A.  
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 San Francisco, Calif.  
 Washington, D. C.  
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- Hastie, William R.  
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 Hennick, Louis Colvin  
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 Herndon, George Burbank, Jr.  
 Hess, William Dale  
 Hiery, James Manning  
 Higgins, James T., Jr.  
 Higgins, Norman Gibson  
 Hilles, William Clark  
 Hinkley, Clark Miller  
 †Hipp, Carnie Paris, Jr.  
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 Hobby, Wilbur  
 Hoffman, Gerald Edwin  
 Hogan, Roger Owens  
 Holcomb, Hoke Smith, Jr.  
 Holcomb, Hugh Lindsay  
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 Hood, Joseph Williams, Jr.  
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 Howard, William Hand B.  
 Hubbard, Robert Earle  
 Hug, Richard Ernest  
 Hughes, Albert Wellwood, Jr.  
 Hulsart, Robert A.  
 Hundley, John Camden, Jr.  
 Hunter, Parks De Armon, Jr.  
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 Hynson, Nathaniel, VIII  
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 Israel, Stanley Edward  
 Jenkins, James Sage  
 Jennette, Albert Tyson  
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 Johnson, Richard Metcalf  
 Johnson, Robert David  
 Johnson, Vernon Webster, Jr.  
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 Jones, Curtis Phelps  
 Jones, Malcolm David  
 Jones, Robert Ellsworth, Jr.  
 Jones, Robert Randolph, III  
 Jones, Thomas Edison  
 Jones, Wallace Theodore  
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 Kauffman, Bruce William  
 Kechejian, Edward Samuel  
 Keefe, Peter Croydon  
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 Kirkpatrick, David Willis  
 Kledaras, Constantine G.  
 Kledaras, Harold G.  
 †Knaake, Philipp Bernhard Konrad, Jr.  
 Knotts, John Douglas  
 Kocourek, Jerry John  
 Koerner, John  
 Kolko, Philip  
 Konick, Milton  
 Krollicki, Thaddeus James  
 Labry, Edward A., Jr.  
 Lack, John Joseph  
 Ladd, Robert Allen  
 Lamb, Glenwood Edward  
 †Lambdin, James Floyd  
 Lambert, Edward P., Jr.  
 Langley, Van Emerson  
 †Lanier, Theodore Bailey  
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 LaVoo, George William  
 Leak, Robert Edwards  
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 Atlanta, Ga.  
 Charlotte, N. C.  
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 Glenville, Ga.  
 Wilmington, N. C.  
 West Hartford, Conn.  
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 Franklin, Va.  
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 Washington, N. C.  
 Orangeburg, S. C.  
 Durham, N. C.  
 Trenton, N. J.  
 Ventnor City, N. J.  
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 New York, N. Y.  
 Silver Spring, Md.  
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 Canton, N. C.  
 Raleigh, N. C.  
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 Lynchburg, Va.  
 Albemarle, N. C.  
 Berwyn, Ill.  
 Louisville, Ky.  
 Spring Valley, N. Y.  
 Cicero, Ill.  
 Pawtucket, R. I.  
 Mobile, Ala.  
 Camden, N. J.  
 Richmond, Ind.  
 Wimauna, Fla.  
 Princeton, W. Va.  
 Roanoke, Va.  
 Buenos Aires, Argentina  
 Rocky Mount, N. C.  
 Niles, Ohio  
 Cortland, Ohio  
 Rockingham, N. C.  
 New York, N. Y.  
 Winston-Salem, N. C.

- Lenox, Roger Barry  
 Levin, Robert Lee  
 Levitin, Jordan Sheffer  
 Levy, Michael P.  
 Lewis, Andrew Morris, Jr.  
 Lewis, Charles Hoffman  
 Lichtenstein, Edward  
 Lovett, Don R.  
 Low, Joseph T.  
 Lowe, Donald Edward  
 Lowi, Bertram H.  
 Lucas, George Wilson  
 Lugar, William Carroll  
 Lunsford, Delano Allen  
 Lynch, John Chaplain  
 Lynch, Walter Graham  
 MacDonald, John Whitney, Jr.  
 MacGregor, Duncan Bruce  
 Mahdavi, Massud  
 Mahoney, Dennis Michael  
 Markoff, Alan S.  
 Marston, John Tucker  
 Marston, Marshall  
 Martin, Wayne Stephen  
 Massey, Richard C.  
 Matthews, Joseph C., III  
 Maxson, Myron Finley  
 Mayer, Ronald Bruce  
 Mayes, Otto W., Jr.  
 Mayhew, Kenneth Edwin, Jr.  
 Maynard, Sidney Charles  
 McAllister, John Franklin  
 McClain, Dave H.  
 McCloskey, Kersey Everett  
 McCollough, Newton Clark  
 †McCreery, Arley Joe  
 McElroy, Eugene Gideon  
 McGranahan, Charles Bruce  
 McKinney, Horatio Walker  
 McKinnon, John Borden  
 McMillan, Samuel D., Jr.  
 McNeer, Charles Conrad  
 Mejo, Robert Walter  
 Melton, Maxwell Daxter  
 Meriney, David Knight  
 Miller, Kenneth McGlaughon  
 Miller, Robert T.  
 Mitchell, John Wesley, Jr.  
 Moffat, Charles Huston  
 Moles, Stanley Sylvester  
 Monroe, Charles Milton, III  
 Moore, Terrence G.  
 Moore, Thomas Harold  
 Morgan, Eben Cornelius, Jr.  
 Morgan, Lowell Parry  
 Morrell, Prior Stuart  
 Morrow, Donald Hager  
 Mott, John Clement, Jr.  
 Moyle, Jon Cameron  
 Moynihan, Robert E.  
 Muniz, Antonio Manuel  
 Murray, James Thompson  
 Murray, Reginald Alton  
 Murray, Robert H.  
 Murray, Thomas Kingsley  
 Nance, Charles Lee, Jr.  
 Nawrocki, Victor A.  
 Neese, Thomas Rice  
 Nelson, Coy James, Jr.  
 Nichols, Bobby Smith  
 Noakes, John G.  
 Nordan, Robert W.  
 Norris, Edward Janney  
 Noyes, Eugene William  
 O'Callaghan, Harold Augustus  
 O'Dea, Bruce Blair  
 Pape, William Rudolph, Jr.  
 Park, Daniel Joseph  
 Parker, Thomas Rutledge  
 Pascal, Robert Anthony  
 Pearce, Clyde Arthur  
 Ridgefield Park, N. J.  
 Clayton, Mo.  
 Norfolk, Va.  
 Elizabeth, N. J.  
 Cheriton, Va.  
 Shreveport, La.  
 Peekskill, N. Y.  
 Dixon, Ill.  
 Verona, N. J.  
 Parkersburg, W. Va.  
 Gadsden, Ala.  
 Erwin, N. C.  
 Oceana, W. Va.  
 Durham, N. C.  
 Beaufort, N. C.  
 Roanoke Rapids, N. C.  
 Providence, R. I.  
 Oak Park, Ill.  
 Meshed, Iran  
 York, Pa.  
 Peekskill, N. Y.  
 Gate Mills, Ohio  
 Washington, D. C.  
 Oak Park, Ill.  
 Charlotte, N. C.  
 Raleigh, N. C.  
 Columbus, Ohio  
 Avalon, Pa.  
 Durham, N. C.  
 Cherryville, N. C.  
 Montgomery, W. Va.  
 Sistersville, W. Va.  
 Durham, N. C.  
 East Palestine, Ohio  
 Windermere, Fla.  
 White Sulphur Springs, W. Va.  
 Birmingham, Ala.  
 Pittsburgh, Pa.  
 Etowah, Tenn.  
 Lumberton, N. C.  
 Wilmington, N. C.  
 Bristol, Va.  
 Malverne, N. Y.  
 Gastonia, N. C.  
 Ramsey, N. J.  
 Laurinburg, N. C.  
 Queens Village, N. Y.  
 La Grange, N. C.  
 Scranton, Pa.  
 Dunbar, W. Va.  
 Scarsdale, N. Y.  
 Salem, Ohio  
 Wilmington, Del.  
 Asheboro, N. C.  
 Elizabeth, W. Va.  
 Brookline, Mass.  
 Mooresville, N. C.  
 Wynnewood, Pa.  
 West Palm Beach, Fla.  
 Portsmouth, Va.  
 Jacksonville, Fla.  
 Charlotte, N. C.  
 Kings Mountain, N. C.  
 Long Beach, N. Y.  
 Summit, N. J.  
 Charlotte, N. C.  
 Union, N. J.  
 Greensboro, N. C.  
 Winston-Salem, N. C.  
 Greenville, N. C.  
 Douglaston, L. I., N. Y.  
 Raleigh, N. C.  
 Birmingham, Ala.  
 Roselle Park, N. J.  
 Mamaroneck, N. Y.  
 Mt. Lakes, N. J.  
 Wilmington, N. C.  
 Elkin, N. C.  
 Pass Christian, Miss.  
 Bloomfield, N. J.  
 Spring Lake, N. J.



- Pearson, John Hale, Jr.  
 Peeler, Shuford Kirk, Jr.  
 Pena, William A.  
 Pendleton, Nathan S., III  
 Perry, Oliver Gordon, Jr.  
 Perry, Richard Bacon  
 Peterson, Edwin P.  
 Pingitore, Albert John  
 Piper, Harry Mahoney, Jr.  
 Pipkins, Oscar William  
 †Pirret, Peter Douglas  
 Plater, Richard Wade  
 Pledger, Reginald Harrison, Jr.  
 Plosa, George Edward  
 Poole, Edwin S.  
 Porcelli, Joseph Andrew  
 Porter, Angus Caswell  
 Powell, Ferrell Franklin, Jr.  
 †Powell, William Charles  
 Prewitt, Richard Alden  
 Price, John C.  
 Prothero, Robert Harry  
 Pruden, Charles R., Jr.  
 Ralph, John Bryant  
 Ratchford, Dan Jenkins  
 Ray, Herbert Barth  
 Reece, Richard Lee  
 Reitzel, Baxter Purleymon, Jr.  
 Rhees, Herbert Philip  
 Rich, James Gordon  
 Riddlehuber, Hugh Wilson  
 Riffer, John Irwin  
 Riggle, Wilbur Eugene  
 Riggs, Gary Anderson  
 Rimbach, Peter King  
 Rineberg, Bernard Allen  
 Robertson, Olin Johnson  
 Robinson, Donald Edward  
 Robinson, Joseph Douglas, Jr.  
 Rodensky, Arthur  
 Rogers, David T.  
 Rogers, Max G.  
 Rokus, William Stanley  
 Rooker, Donald White  
 Rose, Martin M.  
 Rossin, Philip Stearns  
 Roth, James H.  
 Rowland, Joseph Perry  
 Roy, Donald Justin  
 Ruffini, Robert Joe  
 Russell, John Carl  
 Sachsenmaier, David Francis  
 Safrit, Robert Willoughley  
 Samara, Tom, Jr.  
 †Sampley, John Paul  
 Samuels, Fred  
 Sanders, Charles C.  
 Sanders, Donald Clayton  
 Saunders, Richard Bennett  
 Savage, Linwood C.  
 Sawyer, Lawrence Weare  
 Schaedel, William King  
 Schaffer, Richard W.  
 Schaub, Philip Dyer  
 Schmidt, Peter Robert  
 Schroeder, Robert Haug  
 Schwarz, John Adam  
 Sciortino, James Michael  
 Scott, J. Stillman  
 Seibert, Edward J.  
 Seibold, Arthur Bingham, III  
 Seward, John  
 Shaw, Philip Eugene  
 Shay, Richard Charles  
 Shepherd, James Dale  
 Shinn, Gerald Harris  
 Silas, Charles Patrick  
 Sims, Donald Charles  
 Sims, Paul Douglas  
 Singleton, William Lee  
 Skipper, Nathan R.  
 Alexandria, Va.  
 Charlotte, N. C.  
 Caracas, Venezuela  
 Cambridge, Md.  
 Durham, N. C.  
 East Douglas, Mass.  
 Dearborn, Mich.  
 Long Branch, N. J.  
 Bristol, Tenn.  
 Lancaster, S. C.  
 Atlanta, Ga.  
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 Charleston, W. Va.  
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 Johnstown, Pa.  
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 Williamstown, Pa.  
 Gastonia, N. C.  
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 Tulsa, Okla.  
 South Bend, Ind.  
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 Fairview Park, Ohio  
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 Oakland, Calif.  
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 Douglaston, N. Y.  
 Asheville, N. C.  
 Yeadon, Pa.  
 Durham, N. C.  
 Durham, N. C.  
 Montoursville, Pa.  
 Rocky Mount, N. C.  
 Lawrence, N. Y.  
 Anderson, Ind.  
 Hanover, Pa.  
 Greenville, N. C.  
 Springfield, Mass.  
 Shaker Heights, Ohio  
 Greenville, N. C.  
 Charlotte, N. C.  
 Beaufort, N. C.  
 Manchester, N. H.  
 Jensen Beach, Fla.  
 New York, N. Y.  
 McCormick, S. C.  
 Washington, D. C.  
 Baltimore, Md.  
 Fort Eustis, Va.  
 Bay Village, Ohio  
 Hackettstown, N. J.  
 Arlington, Va.  
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 Bridgeport, Conn.  
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 Jamaica, N. Y.  
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 Youngstown, Ohio  
 Haw River, N. C.  
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 Elizabeth, N. J.  
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 Akron, Ohio  
 Wilmington, N. C.

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 Smith, John Marley  
 Snowberger, Don Edward  
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 Sorrell, Darrell Francis  
 Spearman, William Whitman  
 Spears, James Rudolph  
 Spragens, Stephen Gerald  
 Stallings, Irvin Orlando  
 Stallings, Riley Sherman  
 Stanford, James Shelton  
 Steele, W. Franklin  
 Stevens, Melville Snyder  
 Stewart, Kenneth Devon  
 Stewart, Robert Drake  
 Stiles, David Ramsay  
 Stone, Richard Cole  
 Stott, E. Russell  
 Stover, Joseph Milton  
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 Stuart, Frank Allan, III  
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 Taylor, Peter V.  
 Taylor, Terry William  
 Teasley, William Alfred  
 Teem, William Milton, III  
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 Thompson, Harry Lewis  
 Thompson, Lawrence Keslar, III  
 Tierney, Harry Austin  
 Tilley, Leonard M.  
 Tindall, John Philip  
 Tinkham, Charles L.  
 Tobin, Donald Kenneth  
 Tope, Stephen Lindsay, Jr.  
 Towe, Kenneth McCarn  
 Towery, Jimmy Hines  
 Tuck, William Pressly  
 Tudor, William Percy  
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 Turcotte, Arthur Leon, Jr.  
 Underwood, Douglas Edgar  
 Underwood, Joel C.  
 Vause, David H.  
 † Veit, Herman Carl  
 Vieth, Roger Gordon  
 Wagner, Robert Marcel  
 Walker, Harrison H.  
 Wallace, Norman Vincent  
 Walter, Robert Peter  
 Warnock, Jack William  
 Warren, James Ivey, Jr.  
 Watkins, Warren Byers, Jr.  
 Watson, David Locke  
 Weaver, Walter Parker  
 Weber, John George  
 Weber, Thomas William  
 Webster, Charles A.  
 Weddle, Raymond Earl  
 Weir, Christopher  
 Werblow, Joel Ivan  
 Whitaker, Cary  
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 White, William Dunlop  
 Whitesides, John Fraser  
 Wietfeldt, Fred Eberhardt  
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 Wilkerson, James Herbert  
 Wilson, Anthony Milan  
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 Raleigh, N. C.  
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 Winston-Salem, N. C.  
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 Montville, N. J.  
 Grosse Pointe, Mich.  
 Wilson, N. C.  
 Portsmouth, Va.  
 Langhorne, Pa.  
 Newport News, Va.  
 Enfield, N. C.  
 Pensacola, Fla.  
 Lexington, N. C.  
 Chelmsford, Mass.  
 Brooklyn, N. Y.  
 Bartlesville, Okla.  
 Baltimore, Md.  
 Tulsa, Okla.  
 Morganton, N. C.  
 Laurens, N. Y.

Wiseman, D. Reid  
 Wisner, Bernard Trusdell  
 Wood, George Thomas, III  
 Woollen, Thomas Hayes  
 Wortman, William Jerome, Jr.  
 Wright, Ernest Linwood, III  
 Wyke, Gene Little  
 Yost, Thomas Marion  
 Yount, Robert Lee  
 Yow, Jesse C.

Brookline, Mass.  
 Silver Spring, Md.  
 High Point, N. C.  
 High Point, N. C.  
 Charlotte, N. C.  
 Ruffin, N. C.  
 Lenoir, N. C.  
 Weaverville, N. C.  
 Newton, N. C.  
 Atlanta, Ga.

## SOPHOMORE CLASS

(\* Transferred from Trinity College to College of Engineering;

† Transferred from College of Engineering to Trinity College)

Ackerman, Barclay Herman  
 †Albert, Karl Vernon  
 \*Aldridge, Fred Cutler  
 Alexander, Thomas Jay  
 Allen, Irving E.  
 Allison, Paul Joseph  
 Anderson, Edward Everett  
 Anderson, John Leroy  
 Anderson, Robert Strange  
 Andrek, George  
 Arthur, William R.  
 Avant, William E.  
 Baches, George James  
 Baehr, Richard Lionel  
 Baker, Charles Clarke  
 Baker, Paul W.  
 Barb, Thomas Summerall  
 Barger, Jerry H.  
 Barker, Orus Cleveland, Jr.  
 Barnard, William Roberts  
 Barnes, Rollin M.  
 Barnhardt, Luther Ernest  
 Barrett, William Requard  
 Bartner, Seth David  
 Barton, Cecil Calvin  
 Beber, Robert H.  
 Becker, Robert Edward, Jr.  
 Beckman, Kendall M., Jr.  
 Bernstein, Lee  
 Bernstein, Robert Lee  
 Berrier, Paul Raymond  
 Best, Albert Hartwell, III  
 Best, James Ted  
 Beveridge, David M.  
 Bianchina, Edward J.  
 Birch, George Terry  
 Bitzer, Carl W.  
 Black, Forrest Revere  
 Blackard, William G.  
 Blades, Lemuel Showell, III  
 Boardman, Robert R.  
 Boardman, William H.  
 Brewer, Richard Alan  
 Brewer, Silas H.  
 Britton, William Moses  
 Brown, David Carhart  
 Brown, Dennison Robert  
 Browning, Henry D.  
 Browning, Robert M.  
 Bryan, David Barclay  
 Bryan, James Lawson  
 Buchheit, William A.  
 Bunch, Willis Anderson, III  
 Buohl, Edward A.  
 Burckel, Robert Charles  
 Burka, Leonard W.  
 Burke, Raymond Francis  
 Burkholder, Peter C.  
 Burr, Peter Shepard  
 Burwell, Nathaniel Daniel, Jr.  
 Byers, Frank M.  
 Callahan, George Sidney, Jr.  
 Callahan, Paul Xavier  
 Campbell, Fred M.  
 Carlton, Joseph Leland  
 Case, Lawrence E.

Malverne, L. I., N. Y.  
 Goldsboro, N. C.  
 Wayne, Pa.  
 Bloomfield Hills, Mich.  
 Durham, N. C.  
 South Weymouth, Mass.  
 Durham, N. C.  
 Pittsburgh, Pa.  
 Glen Rock, N. J.  
 Glen Lyon, Pa.  
 Ft. Thomas, Ky.  
 Durham, N. C.  
 New Bern, N. C.  
 Springfield, Mass.  
 Arlington, Va.  
 Atlanta, Ga.  
 Waban, Mass.  
 Salisbury, N. C.  
 Asheville, N. C.  
 Washington, D. C.  
 Coshocton, Ohio  
 Concord, N. C.  
 High Point, N. C.  
 Great Neck, N. Y.  
 Trenton, N. J.  
 Bronx, N. Y.  
 Laurelton, L. I., N. Y.  
 Columbia, S. C.  
 Baltimore, Md.  
 Massillon, Ohio  
 Thomasville, N. C.  
 Durham, N. C.  
 Stantonsburg, N. C.  
 Dallas, Texas  
 Hempstead, N. Y.  
 Princeton, N. J.  
 Elizabethton, Tenn.  
 Orlando, Fla.  
 Asheville, N. C.  
 Elizabeth City, N. C.  
 St. Petersburg, Fla.  
 St. Petersburg, Fla.  
 Bound Brook, N. J.  
 Anchorage, Ky.  
 Aboskie, N. C.  
 Rockville Centre, N. Y.  
 Baton Rouge, La.  
 Wilson, N. C.  
 Durham, N. C.  
 Scottsdale, Ariz.  
 Greensboro, N. C.  
 Greensburg, Pa.  
 Chadbourne, N. C.  
 Ferndale, Mich.  
 Lakeland, Fla.  
 Washington, D. C.  
 Dalton, Mass.  
 Indianapolis, Ind.  
 Rosemont, Pa.  
 Oxford, N. C.  
 St. Petersburg, Fla.  
 Miami, Fla.  
 Trenton, N. J.  
 Swarthmore, Pa.  
 Wauchula, Fla.  
 Stanford, Conn.

Cashman, Donald Christopher  
 Cassidy, Samuel M.  
 Caulfield, Hubert Edward  
 Cavanaugh, Thomas Jordan  
 Chandler, Robert Moye, Jr.  
 Chapin, Lee West  
 Chilton, Scott William  
 Christian, William S.  
 Christie, John Norton, Jr.  
 Clarke, William Mynell  
 Classen, William  
 Clayton, Robert Holmes  
 Clontz, John Milton  
 Cogan, Thomas Joseph, Jr.  
 Cole, Willis Hunter, Jr.  
 Collins, Harold Arthur, Jr.  
 Compton, Kenneth Brown  
 Conna, Sherrill A.  
 †Copeland, Richard J.  
 Cordes, William Frederick  
 Coulthurst, Lawrence J.  
 Courie, Maurice N.  
 Cressou, David Homer  
 Critz, Dale Clements  
 Croll, John, Jr.  
 Crowder, Billy Lee  
 Crowley, Henry Donald  
 Cullen, William Thompson, Jr.  
 Cummings, William F.  
 Czyz, Raymond W.  
 Dailey, Richard Dayton  
 Dalton, Frank Palmer  
 Dark, Ralph Marshall, Jr.  
 Davis, Harry Charles  
 Davis, Robert B.  
 Davis, Thomas E.  
 DeBevoise, Arthur Robert  
 de Cordova, Peter  
 Denison, Richard Lindsey  
 Dickson, Ronald W.  
 Dispenziere, Carl Joseph  
 Dixon, John Elliott  
 Dodd, C. Swanson, II  
 Dorn, Thomas F.  
 Drozdowski, Fred G.  
 Dubosky, John B.  
 Dumas, Ernest Mills  
 Dutschman, Karl  
 Duval, Richard Charles  
 Duval, Ronald Carroll  
 Eaddy, Wildon Brooks  
 Eason, Elwood Ray  
 Eberdt, Jess Samuel  
 Eckles, James  
 Edwards, Carl Norris  
 Edwards, Peter Smith  
 Edwards, Roy C.  
 Eller, Julius Benjamin  
 Ellington, John David  
 Erickson, Emil Palm  
 Evans, James Mowery  
 Everhart, Wade H., Jr.  
 Fary, Ernest Franklin, Jr.  
 Fessender, Bruce D.  
 Finn, Rodney Huck  
 Fischer, David Johnston  
 Fischer, Richard Edmund  
 Fisher, Elbert Luther  
 Foreman, Clay Bertrand, Jr.  
 Franklin, Paul Douglas  
 Friedman, David A.  
 Fulcher, John Rodney  
 Fuller, Frederic W.  
 Fuller, William Morris  
 Fulton, James M., Jr.  
 Garra, Ray Hamilton  
 Garron, Thomas McCarley  
 Gates, Herbert Stelwyn  
 Gatling, Willard Hingworth, Jr.  
 Geissler, William Peter  
 Gerhardt, Charles Hunter

New York, N. Y.  
 Jenkins, Ky.  
 St. Petersburg, Fla.  
 Southport, Conn.  
 Rocky Mount, N. C.  
 Niagara Falls, N. Y.  
 Lansdowne, Pa.  
 Durham, N. C.  
 Jacksonville, Fla.  
 Fayetteville, N. C.  
 Atlanta, Ga.  
 Williamston, N. C.  
 Fayetteville, N. C.  
 Chatham, N. J.  
 Elizabethtown, N. C.  
 Southeru Pines, N. C.  
 Durham, N. C.  
 Yonkers, N. Y.  
 New York, N. Y.  
 Tuckahoe, N. Y.  
 Plainfield, N. J.  
 Kinston, N. C.  
 Lenoir, N. C.  
 Savannah, Ga.  
 Middletown, Pa.  
 Greensboro, N. C.  
 Bronxville, N. Y.  
 Macon, Ga.  
 Mamaroneck, N. Y.  
 Suffield, Conn.  
 Cumberland, Md.  
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 Marion, N. C.  
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 Clarksburg, W. Va.  
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 Poughkeepsie, N. Y.  
 Winston-Salem, N. C.  
 Shelby, N. C.  
 Bloomfield, N. J.  
 Ayden, N. C.  
 Henderson, N. C.  
 Charleston, S. C.  
 New York, N. Y.  
 Irwin, Pa.  
 Lowell, Mass.  
 Ridgewood, N. J.  
 Belmar, N. J.  
 Belmar, N. J.  
 Johnsenville, S. C.  
 Snow Hill, N. C.  
 Arlington, Va.  
 McKeesport, Pa.  
 Asheville, N. C.  
 York, Pa.  
 Mt. Airy, N. C.  
 Lenoir, N. C.  
 Greensboro, N. C.  
 Sioux Falls, S. D.  
 Maumee, Ohio  
 Katonah, N. Y.  
 Manila, Philippines.  
 Candor, N. Y.  
 Shaker Heights, Ohio  
 Mamaroneck, N. Y.  
 Glen Ridge, N. J.  
 Durham, N. C.  
 Elizabeth City, N. C.  
 Raleigh, N. C.  
 Trenton, N. J.  
 Greenville, N. C.  
 Durham, N. C.  
 Chicago, Ill.  
 Greensboro, N. C.  
 Miami Shores, Fla.  
 Valdese, N. C.  
 Washington, D. C.  
 Charlotte, N. C.  
 Ossining, N. Y.  
 Winter Park, Fla.

- Gibson, David Paxson  
 Gilbert, Robert Claude, Jr.  
 Gilhooley, Joseph Francis  
 Gilliam, Ivey Wilson  
 Gist, Charles Rudy  
 Gleason, Francis Joseph  
 Glosson, James Grady, Jr.  
 Godfrey, Banks O.  
 Goforth, Marcus Herndon  
 Gooch, Edwin James, Jr.  
 Gorham, Perry G.  
 Graham, Thomas Caston  
 Gray, William Lafayette  
 Green, B. Frank  
 Griffith, Robert Cyrus  
 Gross, Max B.  
 Gruber, Ira Dempsey  
 Grumhaus, Peter Dean  
 Guest, Franklin D.  
 Gunn, Robert Miles  
 Gwinn, Byron Charles, II  
 Hackett, Robert Noel  
 Hagan, Jack D.  
 Hail, Jack Lee  
 \*Hambrick, Herman Casto, II  
 Hancock, Donald Thomas, Jr.  
 Hands, Joe A.  
 Hansen, Rolf Krahn, Jr.  
 Hansen-Pruss, Harold R.  
 Hargrave, Charles Clement  
 Harper, Lyle Edward  
 Harrington, Michael Hale  
 Harris, Barry C.  
 Hayes, James Cline  
 Hernandez, Rafael Ricardo  
 Herring, John Furman, Jr.  
 Hettleman, Kalman Robert  
 Hiers, Marion Glenn, Jr.  
 Hochreiter, Peter Franklin  
 Hoeper, James S.  
 Holmes, Robert E.  
 Holshouser, Victor Arnett  
 Honeycutt, Ava L., Jr.  
 Horan, John Thomas  
 Houlihan, Gery  
 Howard, Charles W.  
 Hudson, Marks Daughtry  
 Huffington, Paul E., Jr.  
 Hughes, Rex Farris  
 Hummel, John K.  
 Humphrey, George Dudley, Jr.  
 Hunger, John Mace  
 Huntley, William B.  
 Hurlburt, James Cole  
 Hurley, William John  
 Huston, Tom, Jr.  
 Ingersoll, Thomas N.  
 Jackson, Richard Dreux, Jr.  
 James, Fleming  
 Jennette, William Shaw, Jr.  
 Johns, John  
 Johnson, Albin W.  
 Johnson, James Russell  
 Johnson, Lewis C.  
 Johnson, Paul Armstrong  
 Johnson, Randall Thomas  
 Johnston, Charles Edgar  
 Johnston, Lynwood Speed  
 Johnstone, George, III  
 Jones, Oliver Lee, Jr.  
 Jones, Richard Butner  
 Kadis, Harold Leon  
 Kaiser, Richard W.  
 Kalb, Irving Morris  
 Kaufman, Arthur  
 Keenan, Michael Edgar  
 Kehoe, Robert D.  
 Keller, Brooks T.  
 Kennard, Robert Duane  
 Kennedy, David Musick  
 Killen, Richard Beaman  
 Charlotte, N. C.  
 Charlotte, N. C.  
 Jackson Heights, L. I., N. Y.  
 Graham, N. C.  
 Greenville, S. C.  
 Washington, D. C.  
 Siler City, N. C.  
 Atlanta, Ga.  
 Concord, N. C.  
 Durham, N. C.  
 Morehead City, N. C.  
 Newnan, Ga.  
 Coral Gables, Fla.  
 Sarasota, Fla.  
 Salisbury, Md.  
 Ft. Lauderdale, Fla.  
 Pottstown, Pa.  
 Hinsdale, Ill.  
 Anderson, S. C.  
 Sanford, N. C.  
 Virginia Beach, Va.  
 Lampeter, Pa.  
 Hazard, Ky.  
 Richmond, Va.  
 Charleston, W. Va.  
 Scarsdale, N. Y.  
 Mt. Rainier, Md.  
 Pompton Lakes, N. J.  
 Durham, N. C.  
 Lexington, N. C.  
 Yale, Mich.  
 Towson, Md.  
 Grosson, Pa.  
 Augusta, Ga.  
 Santurce, Puerto Rico  
 Durham, N. C.  
 Baltimore, Md.  
 Orangeburg, S. C.  
 Buffalo, N. Y.  
 Norfolk, Va.  
 Atlanta, Ga.  
 Rockwell, N. C.  
 Spring Hope, N. C.  
 Ft. Wayne, Ind.  
 Short Hills, N. J.  
 Garden City, N. Y.  
 Jacksonville, Fla.  
 Baltimore, Md.  
 Milan, Tenn.  
 Seymour, Conn.  
 Wilmington, N. C.  
 Scarsdale, N. Y.  
 Charlotte, N. C.  
 Salem, Ohio  
 Princeton, N. J.  
 Miami, Fla.  
 Evanston, Ill.  
 Tampa, Fla.  
 Durham, N. C.  
 Elizabeth City, N. C.  
 Long Beach, N. Y.  
 Arlington, Va.  
 Fayetteville, N. C.  
 Claymont, Del.  
 White Plains, N. Y.  
 High Point, N. C.  
 Lafayette, R. I.  
 Longmeadow, Mass.  
 Grove City, Pa.  
 West Palm Beach, Fla.  
 Atlanta, Ga.  
 Goldsboro, N. C.  
 Leonia, N. J.  
 Trenton, N. J.  
 Jersey City, N. J.  
 St. Petersburg, Fla.  
 Princeton, N. J.  
 Baltimore, Md.  
 Rising Sun, Md.  
 Pittsburgh, Pa.  
 Coral Gables, Fla.



Koeze, Tom H.  
 Koonts, Frank John  
 Kottler, Saul  
 Kreutzer, Richard Miller  
 Kuhnert, Fred Joseph  
 Lamley, Howard Foote, Jr.  
 Lammey, Franklin E., Jr.  
 Landau, Peter Edward  
 Lane, Daniel  
 Lavié, Henrique José  
 Lawshé, Emmett Durham  
 Leake, Robert Clark  
 Lee, James Mobley  
 Lee, William C.  
 Leonard, Raleigh Webster, Jr.  
 Levine, Robert John  
 Lewis, Ronald Allan  
 Lewis, Thomas Murray  
 Lighthipe, Kenneth D.  
 Lindsay, Rodger  
 Lloyd, Laurence W., Jr.  
 Lodder, Herbert Kingsley  
 Long, Harry Glenn, Jr.  
 Lucas, Andrew Jackson, Jr.  
 Lucey, Paul E.  
 Luellen, David H.  
 Luneberg, Robert H.  
 Lutz, Worth Arthur, Jr.  
 Mabry, William Franklin  
 MacLeod, Ronald Collin  
 Manos, Connie Louis  
 Marett, William Wylie, Jr.  
 Martz, Charles Thomas  
 Massaro, Al Dominic  
 Maxwell, Daniel Hugh  
 Maxwell, Donald  
 Maynor, Thomas Cortez  
 McClellan, Charles Pearen  
 McConnell, Owen L.  
 McKay, Wiley Cotton  
 McKeithan, Roy N.  
 McKenzie, Jerry Francis, III  
 † McMullen, Mirril Alvah  
 McNally, James  
 McNeely, Homer A.  
 McPhail, John C.  
 McKae, Cameron S.  
 Michaels, Edwin Shedd  
 Midkiff, Claude E.  
 Miller, Charles Samuel  
 Miller, Phillip William  
 Miller, Thomas Raymond  
 Miller, William Patrick  
 Mills, Don Forest  
 Milsap, James Hurdist, Jr.  
 Milton, Hugh M.  
 Mitchell, Glenwood J.  
 Molinari, Ramón E.  
 Moon, Tracy Leon  
 Moss, William R.  
 Mowery, Alfred L.  
 Murray, Brian  
 Mutter, Robert Louis  
 Myers, Alonzo Harrison, Jr.  
 Myers, Charles Edward  
 Nehrig, Harry Meade  
 Newbill, James Watson  
 † Newell, Thomas D.  
 Nichols, Creighton Rice  
 Nowlin, John Burton  
 Odell, Davis Jarrell  
 Oliver, Richard Carl  
 O'Shee, Patrick C., Jr.  
 Ott, Louis Joseph  
 Otto, Ronny Cromwell  
 Outcalt, Richard F., Jr.  
 Overton, Joseph Louis  
 Palmer, John E.  
 Pardoe, Charles Edward  
 Parsons, Donald Thomas  
 Paulin, Edward William  
 Grand Rapids, Mich.  
 Lexington, N. C.  
 Brooklyn, N. Y.  
 Bronxville, N. Y.  
 Englewood, N. J.  
 Havertown, Pa.  
 Coatesville, Pa.  
 Caracas, Venezuela  
 Fayetteville, N. C.  
 Caracas, Venezuela  
 Bronxville, N. Y.  
 Tupelo, Miss.  
 Birmingham, Ala.  
 DeLand, Fla.  
 Lexington, N. C.  
 Wantagh, N. Y.  
 Shaker Heights, Ohio  
 Fairmont, N. C.  
 Westfield, N. J.  
 Wynnewood, Pa.  
 Charles Town, W. Va.  
 Baldwinsville, N. Y.  
 Gastonia, N. C.  
 Blackstone, Va.  
 Waltham, Mass.  
 Elmira, N. Y.  
 Hollis, L. I., N. Y.  
 Durham, N. C.  
 Shelby, N. C.  
 West Hempstead, N. Y.  
 Greensburg, Pa.  
 Atlanta, Ga.  
 Westfield, N. J.  
 Tampa, Fla.  
 Fayetteville, N. C.  
 Johnstown, Pa.  
 Durham, N. C.  
 Atlanta, Ga.  
 Tampa, Fla.  
 Rye, N. Y.  
 Lumberton, N. C.  
 Rock Hill, S. C.  
 Baldwinsville, N. Y.  
 Kingsport, Tenn.  
 Sanford, N. C.  
 Winston-Salem, N. C.  
 South Boston, Va.  
 Chicago, Ill.  
 Mt. Airy, N. C.  
 Brooklyn, N. Y.  
 Bethel, Del.  
 High Point, N. C.  
 Bartow, Fla.  
 Sands Point, N. Y.  
 Atlanta, Ga.  
 Alexandria, Va.  
 Newport News, Va.  
 Río Piedras, Puerto Rico  
 Durham, N. C.  
 Spring Hope, N. C.  
 Augusta, Ga.  
 Plainfield, N. J.  
 Durham, N. C.  
 Charlotte, N. C.  
 White Plains, N. Y.  
 Patton, Pa.  
 Guatemala City, Guatemala  
 Charlotte, N. C.  
 Brattleboro, Vt.  
 Charlotte, N. C.  
 Mt. Airy, N. C.  
 Fort Mill, S. C.  
 Birmingham, Ala.  
 Seaford, N. Y.  
 Ft. Thomas, Ky.  
 Chagrin Falls, Ohio  
 Shelby, N. C.  
 Lynchburg, Va.  
 Washington, D. C.  
 Williamston, N. C.  
 Wilmington, Del.

- Pell, Allan Briggs  
 Pensa, Herc  
 Perkins, David Bruce  
 Perkins, Gordon S.  
 Perkins, William Clopton  
 Phillips, Robert E.  
 Phillips, William Morgan  
 Pickens, R. Andrew  
 Pierson, Richard Ross  
 Pizer, Edward Paul  
 Pollock, Arnold Harris  
 Poole, Ivey Tahnage, Jr.  
 Poppenberg, John R.  
 Porter, George H., III  
 Postma, Herman  
 Potter, Eric Davis  
 Pressly, George Byrne  
 Price, E. Reynolds  
 Price, Grady Edwin  
 Pyatt, Kedar David, Jr.  
 Quillard, Francis Emil  
 Rackley, Charles E.  
 Ransom, James Russell  
 Rath, Lisle Frederick  
 Reigel, William Ernest  
 Rheinlander, Robert Harvey  
 Richardson, William Edward  
 Richter, Fred W.  
 Ring, William Nailling  
 Ripper, Raymond Joseph  
 Roberts, John David  
 Robinson, George Parks  
 Rockwell, John Davenport  
 Rockwell, Lovic Eugene  
 Rodgers, George Donald  
 Rollins, J. Floyd  
 Rossell, Spencer George  
 Ruda, Rudolf A.  
 Russell, Don James  
 Sams, Warren Newton, Jr.  
 Sanchez, Joe, Jr.  
 Sandoe, Lester Bond, Jr.  
 Sargent, Eaton Dudley  
 Scargle, John Gordon  
 Scharges, Horace Forsyth  
 Scheil, Charles P.  
 Scheuerl, Donald Raymond  
 Schiller, Peter H.  
 Schimmel, David M.  
 Schneider, Edwin Bruce  
 Schneider, John Allan  
 Scott, Michael  
 Sebastian, Richard Alexander, Jr.  
 Shaffer, Frank Leroy  
 Shankle, Joel Warren  
 Sherrill, Thomas Crowell  
 Shimchick, Michael Basil  
 Siegel, Martin Roy  
 Sieloff, August John  
 Simmons, William Powell  
 Singletary, Richard Lewis  
 Skerrett, Russell Cain  
 Skodzinski, Jules Francis  
 Smith, Charles Elton, II  
 Smith, Charles T.  
 Smith, Elswick Grant  
 Smith, George Peter  
 Smith, Phillip Don  
 Smith, William Edgar  
 Snyder, Charles Boshier  
 Solow, Alan Mitchell  
 Spangler, Albert Donald  
 Steckler, Matthew  
 Stephenson, Samuel Solomon  
 Stevens, David Hurst  
 Stewart, Burton Gloydin, Jr.  
 \*Stiegler, Theodore Donald  
 Stiffel, Jules Norman  
 Strzetelski, George T.  
 Suger, Richard Harry  
 Sunderman, Dee W.  
 Pilot Mountain, N. C.  
 Westfield, N. J.  
 Skaneateles, N. Y.  
 Bluefield, W. V.  
 Lynchburg, Va.  
 Durham, N. C.  
 Durham, N. C.  
 High Point, N. C.  
 Charleston, W. Va.  
 Raleigh, N. C.  
 Miami Beach, Fla.  
 Benson, N. C.  
 Brooklyn, N. Y.  
 Charlotte, N. C.  
 Wilmington, N. C.  
 Raleigh, N. C.  
 Raleigh, N. C.  
 Raleigh, N. C.  
 Charlotte, N. C.  
 Goldsboro, N. C.  
 Holyoke, Mass.  
 Independence, Va.  
 Summit, N. J.  
 Fulton, N. Y.  
 Monaca, Pa.  
 Glens Falls, N. Y.  
 Miami, Fla.  
 Scarsdale, N. Y.  
 Newton Highlands, Mass.  
 Ridgewood, N. J.  
 Buffalo, N. Y.  
 Charlotte, N. C.  
 Winston-Salem, N. C.  
 Vinegar Bend, Ala.  
 Greenlawn, L. I., N. Y.  
 Greensboro, N. C.  
 Flushing, N. Y.  
 Clearwater, Fla.  
 Woodsville, N. H.  
 Atlanta, Ga.  
 St. Augustine, Fla.  
 Bristol, Va.  
 Crescent City, Fla.  
 Wenonah, N. J.  
 Brooklyn, N. Y.  
 Jersey City, N. J.  
 Ho Ho Kus, N. J.  
 Jacksonville, Fla.  
 Baltimore, Md.  
 Forest Hills, N. Y.  
 Coronado, Calif.  
 Bailey's Bay, Bermuda  
 Washington, D. C.  
 Bluefield, W. Va.  
 Dobson, N. C.  
 Charlotte, N. C.  
 Bellevue, Pa.  
 Trenton, N. J.  
 Indianapolis, Ind.  
 Pilot Mt., N. C.  
 Thomasville, Ga.  
 Western Springs, Ill.  
 Philadelphia, Pa.  
 Charleston, W. Va.  
 Durham, N. C.  
 Asheboro, N. C.  
 Perrysburg, Ohio  
 Huntington, W. Va.  
 Laurinburg, N. C.  
 Petersburg, Va.  
 Englewood, N. J.  
 Philadelphia, Pa.  
 Bronx, N. Y.  
 Angier, N. C.  
 Conneaut, Ohio  
 Williamston, N. C.  
 Towson, Md.  
 Chicago, Ill.  
 Hicksville, N. Y.  
 Rockville Centre, N. Y.  
 Cazenovia, N. Y.

Supinski, Stanley X.  
 Sutta, Elihu S.  
 Sutton, David Brevard  
 Tafel, Stantime W.  
 Taggersell, Carl Winfield  
 Taishoff, Lawrence B.  
 Taylor, Charles Richard  
 Taylor, Robert Walker  
 Thacker, Henry Lee, Jr.  
 Thomas, Norwood Anderson, Jr.  
 Thomas, William Alan  
 Thompson, Herrick Sackett  
 Thorne, Larry G.  
 Thum, Frederic Colton  
 Tisi, Angelo Charles  
 Todd, Thomas Ullaund  
 Toler, James Robert  
 Torrance, Ralph D.  
 Trevarthen, Robert Richard  
 Trimper, Daniel, IV  
 Tucker, Daniel Noe  
 Tucker, Donald Hugh  
 Ulrich, Robert L.  
 Van Ness, Richard Albert  
 Vazquez, Roberto G.  
 Virden, Frank Stanley  
 Vodicka, Ralph Edgar  
 Voegtlen, Robert Samuel, Jr.  
 Waggoner, Gilbert P.  
 Wagner, William Carver, II  
 Walters, John Frederick, Jr.  
 Ward, Charles Lavon  
 Warren, Millard  
 Watson, John H.  
 Way, Maxwell M.  
 Weeks, Robert Doughty, Jr.  
 Weil, Murray Blair  
 Weiss, Gerald Felix  
 Whipple, Gaylord Clarke, Jr.  
 Whitaker, H. Fuller  
 White, Allyn W., Jr.  
 Whitley, Elbert Lee  
 Whitlock, Douglas, II  
 Wiener, Earl Louis  
 Wigfield, Ernest Gilchrist  
 Wilkinson, Joseph Hamilton  
 Williams, Max Ray  
 Williamson, Robert L.  
 Wilson, Milner Bradley, III  
 Wilson, Owen Craig, Jr.  
 Wilson, Richard H., Jr.  
 Winstead, John Liudsay  
 Winter, Thorne Sherwood, III  
 Witherspoon, Beverly Wilson  
 Woldin, William Sander  
 Woodlief, Guy Forrest, Jr.  
 Wooten, William Isler  
 Worthy, Willett J.  
 Wray, Charles Williamson, Jr.  
 Wright, James Milton  
 Wyckoff, Edward Lisk, Jr.  
 Yancey, Robert Stuart  
 York, James Worth  
 Young, Doyne Jackson  
 Ziegler, Edward William

Willow Grove, Pa.  
 New York, N. Y.  
 Raleigh, N. C.  
 Piqua, Ohio  
 Tenafly, N. J.  
 Washington, D. C.  
 Kinston, N. C.  
 Baltimore, Md.  
 Charlotte, N. C.  
 Durham, N. C.  
 Durham, N. C.  
 Grosse Ile, Mich.  
 Beckley, W. Va.  
 Atlanta, Ga.  
 Dobbs Ferry, N. Y.  
 Cincinnati, Ohio  
 Washington, N. C.  
 Macon, Ga.  
 Gastonia, N. C.  
 Ocean City, Md.  
 Wilmington, N. C.  
 Greenville, N. C.  
 St. Petersburg, Fla.  
 Bloomfield, N. J.  
 La Paz, Bolivia  
 Newport, R. I.  
 Ft. Lauderdale, Fla.  
 Lebanon, N. J.  
 Mt. Airy, N. C.  
 Nazareth, Pa.  
 Birmingham, Ala.  
 Sandusky, Ohio  
 Knightdale, N. C.  
 Bayside, L. I., N. Y.  
 Carthage, N. C.  
 Babylon, N. Y.  
 New York, N. Y.  
 Brevard, N. C.  
 Oak Park, Ill.  
 Durham, N. C.  
 Pensacola, Fla.  
 Albemarle, N. C.  
 Washington, D. C.  
 Shreveport, La.  
 Brooklyn, N. Y.  
 Washington, D. C.  
 High Point, N. C.  
 Durham, N. C.  
 Clemson, S. C.  
 Lenoir, N. C.  
 Durham, N. C.  
 Greenville, N. C.  
 Atlanta, Ga.  
 Durham, N. C.  
 Bound Brook, N. J.  
 Henderson, N. C.  
 Greenville, N. C.  
 Shaker Heights, Ohio  
 Raleigh, N. C.  
 Leaksville, N. C.  
 New York, N. Y.  
 Greensboro, N. C.  
 Asheboro, N. C.  
 Snow Hill, N. C.  
 Elmsford, N. Y.

## JUNIOR CLASS

(\* Transferred from Trinity College to College of Engineering;

† Transferred from College of Engineering to Trinity College)

Akins, John Edwin  
 Alexander, Hobart L.  
 Allen, John Jay  
 Allred, Jeter A., Jr.  
 Almeida, Fernando G.  
 Amling, Richard Herbert  
 Anderson, Herschel Vincent  
 Arnold, Eugene Alanson, Jr.  
 Ashdown, Charles Edward  
 Bailey, Clarence Almon  
 Bailey, William Raymond

Westwood, N. J.  
 South Ozone Park, N. Y.  
 Wichita, Kan.  
 Rockingham, N. C.  
 Sao Paulo, Brazil  
 Pana, Ill.  
 Raleigh, N. C.  
 Atlanta, Ga.  
 Malverne, N. Y.  
 Selma, N. C.  
 Durham, N. C.

- Baima, John A.  
 Bannon, Peter James  
 Barger, Jerry H.  
 Barker, Bradley Sinclair  
 Barnes, Lee Gordon  
 Barnhardt, Max Gordon  
 Barnhill, Lamuel Edgar, Jr.  
 Barr, Charles R.  
 Bates, Walter Irving  
 Baugh, Philip Jackson, Jr.  
 Bazemore, Charles William  
 Beacham, Horace E.  
 Beasley, John A.  
 Beaty, Fred Donald  
 Beaver, Charles Ronald  
 Bell, H. Bradford  
 Bell, John Henry  
 Bennett, Guy Hibert  
 Berlinghof, Peter  
 Biehl, Frederick R.  
 Bird, Robert H.  
 Bishop, Ted H.  
 Boatwright, Frank B.  
 Bobbitt, Ralph Lane, Jr.  
 Bodden, Gerald A.  
 Bollinger, Richard Nevin  
 Bondurant, Wesley Eugene  
 Booth, Robert Harrison  
 Borchardt, Charles Raymond  
 Boshamer, Henry Carlisle  
 Botnick, Robert S.  
 Boyd, Edwin Cannon  
 Boylston, Ben Calvin  
 Bozzelli, Jim F.  
 Bradshaw, Robert Wallace, Jr.  
 Bradt, James L.  
 Bragg, Albert F.  
 Branch, Charles M.  
 Brennan, David Richard  
 Brown, Charles S.  
 Brown, Edgar B.  
 Brown, James P.  
 Bryant, William Franklin, Jr.  
 Buckley, Richard Robert  
 Bundschu, William Blanton  
 Bunn, Joe P.  
 Burrows, Bob L.  
 Butters, John Thomas, Jr.  
 Cahill, Richard W.  
 Cannon, Carl Franklin, Jr.  
 Carpenter, R. George  
 Castor, Donald Franklin  
 Cederstrom, James C.  
 Chamberlain, Barnwell R., Jr.  
 Chaplin, Stanley W.  
 Chesnut, Donald Blair  
 Ciminello, Vito J.  
 Clapp, Gordon William  
 Clapp, James Robert  
 Clifton, Larry Daniel  
 Coggeshall, Albert P.  
 Cole, Alexander T.  
 Collins, Harley G.  
 Collyer, G. Stanley  
 Combes, George Lewis  
 Conner, William A. Fletcher, Jr.  
 Conway, Paul B.  
 Cooley, Charles Hubert  
 Coutlakis, Gus James  
 Crawford, Ted Robert  
 Crockett, David French  
 Crounce, Paul Calvin  
 Crow, Earl Pickett, Jr.  
 Cummins, Hugh Sterling  
 Cunningham, Charles  
 Cunningham, Wayne Ambler  
 Dahl, Doring C.  
 Dalton, Carson E.  
 Dalton, William Lee  
 Davis, Norman Warren  
 De Laski, Donald  
 Ramsey, N. J.  
 Glen Rock, N. J.  
 Salisbury, N. C.  
 Wolfeboro, N. H.  
 Dobbs Ferry, N. Y.  
 Durham, N. C.  
 Bethel, N. C.  
 Wallingford, Pa.  
 Meadville, Pa.  
 Charlotte, N. C.  
 Merion, Pa.  
 West Palm Beach, Fla.  
 Southern Pines, N. C.  
 Belmont, N. C.  
 Salisbury, N. C.  
 Beaver Falls, Pa.  
 High Point, N. C.  
 Durham, N. C.  
 Baltimore, Md.  
 New Rochelle, N. Y.  
 San Antonio, Texas  
 Tucson, Ariz.  
 Ridge Spring, S. C.  
 Rocky Mount, N. C.  
 Port Arthur, Texas  
 Baltimore, Md.  
 Reidsville, N. C.  
 Washington, D. C.  
 Charleston, W. Va.  
 Gastonia, N. C.  
 Hattiesburg, Miss.  
 Greensboro, N. C.  
 Norfolk, Va.  
 Havertown, Pa.  
 Wilson, N. C.  
 Monterrey, Mexico  
 Fullerton, Md.  
 Chesterfield, S. C.  
 Arlington, Va.  
 War, W. Va.  
 Brooklyn, N. Y.  
 Grifton, N. C.  
 Charlotte, N. C.  
 Augusta, Ga.  
 Independence, Mo.  
 Tarboro, N. C.  
 Asheboro, N. C.  
 Wilmington, N. C.  
 Litchfield, Conn.  
 Newport News, Va.  
 Wolfeboro, N. H.  
 Tampa, Fla.  
 Pittsfield, Mass.  
 Charlotte, N. C.  
 Keene, N. H.  
 Cedarville, Ohio  
 Passaic, N. J.  
 Swampscott, Mass.  
 Siler City, N. C.  
 Daytona Beach, Fla.  
 Darlington, S. C.  
 DeLand, Fla.  
 Miami, Fla.  
 Ft. Wayne, Ind.  
 Rockville Centre, N. Y.  
 Roanoke, Va.  
 Greenville, N. C.  
 Charlotte, N. C.  
 Asheville, N. C.  
 Jamaica Estates, L. I., N. Y.  
 Wynnewood, Pa.  
 Frenchtown, N. J.  
 Atlanta, Ga.  
 Cannonsburg, Pa.  
 Durham, N. C.  
 Abington, Pa.  
 Downers Grove, Ill.  
 Verona, N. J.  
 Bethesda, Md.  
 North Augusta, S. C.  
 Washington, D. C.

D'Emilio, Rudy John  
 Derrick, Kenneth C.  
 Dickman, Henry J., Jr.  
 Dillon, Noel P.  
 Dixon, Richard Elmer  
 Dobbs, John Hull  
 Doeblar, John W.  
 Douglas, Bryce  
 Driesell, Charles G.  
 Duft, Harry W.  
 Duke, Davis W., Jr.  
 Dulin, Thomas Leroy  
 Duys, Joseph Carter  
 Dwyer, David William  
 Earnhardt, Harold Clark  
 Edwards, Willard Lee  
 Eisinger, John Overton  
 Else, Fred Hemenway  
 Evans, Jack C.  
 Fairley, Archie B.  
 Farber, James P.  
 Farrell, Thomas Edwin  
 Featherston, John Eugene  
 Fesperman, George Milton  
 Fesperman, Walter Rowe, Jr.  
 Fike, Francis George  
 Fischer, George I.  
 Flora, Jerry Lee  
 Freeman, Francis  
 Freund, Curtis A.  
 Friedlander, Robert  
 Fuller, Gerald W.  
 Fuller, John Peyton  
 Fulton, James Walker  
 Gabler, E. Richard  
 Gachet, Fred Smith, Jr.  
 Gaither, Joseph Milton  
 Galloway, James D.  
 Garber, Meyer  
 Geoghegan, James  
 Gibbons, Gerald Robert  
 Gilliland, Jack K.  
 Givens, Dingess Monroe  
 Glanzer, Charles Elliot  
 Glass, James Fuller, Jr.  
 Goodman, William Francis  
 Goubert, Peter A.  
 Green, Winship I., Jr.  
 Greene, Glenn Leon, Jr.  
 Greene, Ray W.  
 Greenglass, Herman Alfred  
 Griffin, Ashton Thomas  
 Grigg, William Humphrey  
 Guion, John W.  
 Gulledge, James L.  
 Gum, Coburn  
 Guy, Robert George  
 Hadley, Hunter B.  
 Hager, Edward Townsend  
 Hall, Ray A.  
 Hall, Vincent Thomas  
 Hambleton, Ernest Edward, Jr.  
 Hamel, Reginald Stanley  
 Hames, William M.  
 Hamilton, John Colvin, Jr.  
 Hamrick, Harvey B.  
 Handelman, Allan J.  
 Hannel, Earle Yuhl  
 Hanner, Terrence Edward  
 Hargitt, Thomas George  
 Hargraves, William  
 Harper, Andrew N., Jr.  
 Harrison, Perry W.  
 Hartsell, Robert Jay  
 Hawkins, Ronald Harris  
 Hazel, Gerard B.  
 Hensley, Wayne Fortune  
 Herring, Wilborn Moye  
 Hipp, Joe Robert  
 Hoffman, Larry William  
 Hohlstein, William Kurt  
 Philadelphia, Pa.  
 West Hartford, Conn.  
 Florence, S. C.  
 East Hampton, N. Y.  
 Norfolk, Va.  
 Memphis, Tenn.  
 Great Neck, N. Y.  
 Port Jefferson, N. Y.  
 Norfolk, Va.  
 Ridgewood, N. J.  
 Alexandria, Va.  
 Charlotte, N. C.  
 Havana, Cuba  
 South Glens Falls, N. Y.  
 Gold Hill, N. C.  
 Silver Spring, Md.  
 Bethesda, Md.  
 Washington, D. C.  
 Lexington, N. C.  
 Raleigh, N. C.  
 St. Petersburg, Fla.  
 Sanford, N. C.  
 Roxboro, N. C.  
 Charlotte, N. C.  
 Asheville, N. C.  
 Rome, N. Y.  
 Mamaroneck, N. Y.  
 Kingsport, Tenn.  
 Mamaroneck, N. Y.  
 New York, N. Y.  
 Larchmont, N. Y.  
 Erie, Pa.  
 St. Petersburg, Fla.  
 Leesburg, Va.  
 Chambersburg, Pa.  
 Lakeland, Fla.  
 Boone, N. C.  
 Waynesville, N. C.  
 Atlanta, Ga.  
 South Hill, Va.  
 Utica, N. Y.  
 Charlotte, N. C.  
 Pearisburg, Va.  
 Crestwood, N. Y.  
 Durham, N. C.  
 Snow Hill, Md.  
 Englewood, N. J.  
 Silver Spring, Md.  
 Charleston, S. C.  
 Winter Park, Fla.  
 Miami Beach, Fla.  
 Goldsboro, N. C.  
 Albemarle, N. C.  
 Charlotte, N. C.  
 Albemarle, N. C.  
 St. Petersburg, Fla.  
 Amherst, N. Y.  
 Monroe, N. C.  
 Lancaster, Pa.  
 Youngstown, Ohio  
 Coral Gables, Fla.  
 Buffalo, N. Y.  
 Southern Pines, N. C.  
 Savannah, Ga.  
 Alexandria, Va.  
 Boiling Springs, N. C.  
 Patterson, N. J.  
 Buffalo, N. Y.  
 Asheville, N. C.  
 Durham, N. C.  
 Clearwater, Fla.  
 Asheville, N. C.  
 Walkertown, N. C.  
 Dowagiac, Mich.  
 Durham, N. C.  
 Staten Island, N. Y.  
 Asheville, N. C.  
 Wilson, N. C.  
 Charlotte, N. C.  
 Franklin, Pa.  
 Rutherford, N. J.



Holben, Carl E.  
 Holmes, Arthur J.  
 Holmes, William E.  
 Holt, Joseph W.  
 Holt, Roy Ray, Jr.  
 Honaker, Robert W.  
 Honsinger, Robert William  
 Hood, Richard B.  
 Hooper, Sam T.  
 Hope, Robert Clarence  
 Horner, Robert Bruce  
 Horton, James Courtney  
 Hubbard, Milton P.  
 Hulbert, Kenneth M.  
 Hunter, Richard L.  
 Jack, Bernard R.  
 Jackson, Albert C., Jr.  
 James, Frederick, Jr.  
 Janicki, Bernard A.  
 Jennings, William H., Jr.  
 Johnson, Herbert F.  
 Johnson, James B.  
 Johnson, Robert Harvey, Jr.  
 Johnston, John D., Jr.  
 Johnston, LeRoy Orlan, Jr.  
 Jones, Edwin K.  
 Jones, John Donald, Jr.  
 Jones, William Osborne  
 Jordan, Thomas Dietrich  
 Justus, Drayton Ray  
 Kaloostian, Diran Mike  
 Karpman, Steve B.  
 Kaye, Lewis Alan  
 King, Carl Howie, Jr.  
 King, James Edward  
 Kistler, John D.  
 Klein, Arthur J.  
 Knott, William E.  
 Lacy, Clayton Rudolph  
 Ladehoff, Robert Louis  
 Lambert, Boyd Lee  
 Langhter, Joseph Donald  
 Lawler, Robert A.  
 Lawson, Donald V.  
 Lawther, John Wheeler  
 LeBaner, Sidney Irwin  
 Ledes, Claude P.  
 Leggio, Anthony J.  
 Leibfried, Warren Paul  
 Leventis, Peter James  
 Lewis, Ovid Cogdell  
 Liddon, James Flint  
 Lloyd, James Delona  
 Lloyd, James Ronald  
 Louis-Dreytus, William G.  
 Lowndes, William S.  
 Lucas, Charles Henry  
 Lupton, James Harold  
 Lynn, Charles Gordon  
 MacQueen, Kenneth Henry  
 Maddox, William N., Jr.  
 Magaw, Milo E.  
 Magidoff, Jerome  
 Malone, John William  
 Manning, George K.  
 Mansfield, Jack P.  
 Mapleton, Felix Andrew  
 Marks, Jack Henry  
 Marshall, Robert D.  
 Mason, Charlie C.  
 Mason, Dean Towle  
 Mason, Randall Chaplain  
 Matthews, Robert L.  
 Max, Al A.  
 Max, William Edward  
 McCall, James Arthur  
 McClellan, Marion Matthews  
 McCracken, Clayton Honston, Jr.  
 McGraw, Wesley Allen, Jr.  
 McGuinn, John William, Jr.  
 McKee, Robert Cooper

Zellenople, Pa.  
 Colmar, Pa.  
 Brooklyn, N. Y.  
 Sumter, S. C.  
 Albemarle, N. C.  
 Arlington, Va.  
 East Orange, N. J.  
 Hightstown, N. J.  
 Durham, N. C.  
 Clinton, N. C.  
 Malverne, L. I., N. Y.  
 Mt. Sterling, Ky.  
 Stedman, N. C.  
 Danbury, Conn.  
 East Orange, N. J.  
 Leachburg, Pa.  
 Jasper, Ala.  
 Wynnnewood, Pa.  
 Ambridge, Pa.  
 Burlington, N. C.  
 Tampa, Fla.  
 Fairmont, N. C.  
 Princess Anne, Md.  
 Asheville, N. C.  
 Indianapolis, Ind.  
 Harrisburg, Pa.  
 Charleston, W. Va.  
 Henderson, N. C.  
 Great Neck, N. Y.  
 Hendersonville, N. C.  
 New York, N. Y.  
 Washington, D. C.  
 New Rochelle, N. Y.  
 Salisbury, N. C.  
 Alexandria, Va.  
 Ardmore, Pa.  
 Brooklyn, N. Y.  
 Fair Lawn, N. J.  
 Roanoke, Va.  
 High Point, N. C.  
 Albemarle, N. C.  
 Hendersonville, N. C.  
 New Orleans, La.  
 Jenkintown, Pa.  
 Bethesda, Md.  
 Greensboro, N. C.  
 New York, N. Y.  
 Woodhaven, N. Y.  
 Roslyn, L. I., N. Y.  
 Gastonia, N. C.  
 East Orange, N. J.  
 Yazoo City, Miss.  
 Durham, N. C.  
 Durham, N. C.  
 New York, N. Y.  
 Durham, N. C.  
 Hickory, N. C.  
 Belhaven, N. C.  
 Garden City, N. Y.  
 Birmingham, Mich.  
 Auburn, N. Y.  
 Oregon, Ill.  
 Brooklyn, N. Y.  
 Macon, Ga.  
 Greenville, N. C.  
 Cumberland, Md.  
 Miami, Fla.  
 Memphis, Tenn.  
 Beverly Hills, Calif.  
 Roanoke Rapids, N. C.  
 Bethesda, Md.  
 Paterson, N. J.  
 Rockaway, N. J.  
 Irvington, N. J.  
 Baldwin, N. Y.  
 Cazenovia, N. Y.  
 Thomaston, Ga.  
 Asheville, N. C.  
 Cumberland, Md.  
 High Point, N. C.  
 New Wilmington, Pa.

- McRoy, William D., Jr.  
 Meadows, Edward A.  
 Means, Richard E.  
 Meek, Charles R.  
 Melville, Noel  
 Metropol, Jimmy Jack  
 Meyer, Richard Arlen  
 Michael, Robert A.  
 Michaels, Lawrence  
 Millholland, Donald William  
 Milovanovic, Vadim Zoran  
 Mohn, Richard Eberly  
 Molina y Vedia, Marcelo A.  
 Moon, William Conrad  
 Moore, Ted Lewis  
 Moran, George J.  
 Morton, Jack  
 Mullen, Eugene Cooper  
 Naomi, Thomas  
 Neal, William Weaver  
 Neale, William  
 Neely, John Starr  
 Nelson, Courtney B.  
 Nesson, Newell John, Jr.  
 Neuhaus, Francis C.  
 Northrop, Richard A.  
 Novak, Charles F.  
 Oakley, Thomas A.  
 O'Brien, Kenan  
 O'Mansky, Boris Louis  
 Orloff, Gregory Hale  
 Orr, Kenneth B.  
 Osborne, Heber B.  
 Owens, Edgar Hart  
 Pantelakos, Constantine George  
 Paris, Ernest R., Jr.  
 Parker, Paul C.  
 Parr, Bobby Lee  
 Paschal, Jerry Drew  
 Patrick, Roman Lee  
 Patsch, Arthur Vernon, Jr.  
 Patty, William H.  
 Pedersen, Clive Leif  
 Penberthy, Robert John  
 Pennington, Fred Adams  
 Perkins, Henry Thomas, Jr.  
 Perlov, Alexander K.  
 Peters, Thomas  
 Petty, John Albert  
 Pitt, William Howard  
 Pitts, Charles Olen, Jr.  
 Plater, Joseph R.  
 Poore, William E.  
 Pope, Thomas Arnold  
 Pott, William Howard  
 Potter, William Stanley  
 Price, James S.  
 Price, Parham Thomas  
 Pyle, Jack L.  
 Rabin, C. Ronald  
 Raby, Claude L., Jr.  
 Raimondo, Gregory F.  
 Randall, Robert E.  
 Randle, Louis E., Jr.  
 Redlack, Charles K.  
 Redwine, James D., Jr.  
 Reed, John Alton, Jr.  
 Renz, Harry Ward, Jr.  
 Rice, Charles Larry  
 Richardson, Donald J.  
 Riddick, Royce Hoston, Jr.  
 Roaman, Martin  
 Roberson, George Don  
 Robinson, Russell M.  
 Rodio, Carmen John  
 Rosen, Robert I.  
 Rosenkranz, Donald Ira  
 Roth, Alfred Donald  
 Roughton, Ralph Emerson  
 Rowley, Graham T.  
 Ruffy, Franklin G., Jr.  
 Goldsboro, N. C.  
 Oxford, N. C.  
 Winston-Salem, N. C.  
 Scarsdale, N. Y.  
 Grosse Pointe, Mich.  
 Manning, S. C.  
 Chicago, Ill.  
 Springdale, Pa.  
 Forest Hills, N. Y.  
 Indianapolis, Ind.  
 Washington, D. C.  
 Ephrata, Pa.  
 Buenos Aires, Argentina  
 Atlanta, Ga.  
 Gastonia, N. C.  
 Wanaque, N. J.  
 Albemarle, N. C.  
 Kingston, N. Y.  
 Asheville, N. C.  
 Marion, N. C.  
 Ridgewood, N. J.  
 Gastonia, N. C.  
 Tulsa, Okla.  
 Springfield, Pa.  
 Huntington, W. Va.  
 Hermon, N. Y.  
 River Forest, Ill.  
 Quincy, Ill.  
 Bronxville, N. Y.  
 Leaksville, N. C.  
 Taft, Calif.  
 Charlotte, N. C.  
 Washington, D. C.  
 Louisburg, N. C.  
 Rocky Mount, N. C.  
 Atlanta, Ga.  
 Rockville Centre, N. Y.  
 Lexington, N. C.  
 High Point, N. C.  
 Englehard, N. C.  
 Durham, N. C.  
 Burlington, N. C.  
 New Rochelle, N. Y.  
 Wilmette, Ill.  
 Macon, Ga.  
 Durham, N. C.  
 Washington, D. C.  
 Dravosburg, Pa.  
 Garland, N. C.  
 Hertford, N. C.  
 Quantico, Va.  
 Milwaukee, Wis.  
 King of Prussia, Pa.  
 Enfield, N. C.  
 Stratford, Conn.  
 Fayetteville, N. C.  
 New York, N. Y.  
 Lynchburg, Va.  
 Maitland, Fla.  
 Forest Hills, N. Y.  
 Hickory, N. C.  
 Bellmore, N. Y.  
 Elizabeth, N. J.  
 Indianapolis, Ind.  
 Statesville, N. C.  
 Lexington, N. C.  
 Washington, D. C.  
 Norwood, Pa.  
 Durham, N. C.  
 Syracuse, N. Y.  
 West Memphis, Ark.  
 New York, N. Y.  
 Daytona Beach, Fla.  
 Charlotte, N. C.  
 Hammononton, N. J.  
 Rochester, N. Y.  
 Lakewood, N. J.  
 Yonkers, N. Y.  
 Sandersville, Ga.  
 West Hartford, Conn.  
 Kannapolis, N. C.

- Sanders, Robert R.  
 Sansom, Thomas H.  
 Scheman, Robert Bernard  
 Schreiner, Charles W., Jr.  
 Schwartz, Richard T.  
 Schwarz, Robert Louis  
 Seesholts, Wilber O. Arnold  
 Semon, William Peter  
 Shabel, Fred  
 Shaffer, Fred W.  
 Shannon, John Reuben  
 Sheffield, Karl Scarborough  
 Sheirich, Kirk Burr  
 Shiflet, Herbert B., Jr.  
 Shingleton, Hugh M.  
 Short, Robert J., Jr.  
 Shrader, William Raymond, Jr.  
 Siler, Ivan Leon  
 Smiley, Douglas Frederick  
 Smith, Bobby Wayne  
 Smith, James Wesley  
 Smith, Robert Laber  
 Smith, Talbot M.  
 Smith, William Gordon  
 Smith, William H.  
 Smith, William Jordan  
 Spalding, Donald W.  
 Spell, Langston Andrew  
 Stark, Dwight Barton  
 Stein, Charles Alan  
 Stein, Gary Saul  
 Stephens, Samuel Council, Jr.  
 Stevens, Stanley B.  
 Stewart, Perry M.  
 Stokes, DeLeon Edward  
 Stone, Albert Earl  
 Stone, Joseph S.  
 Stopp, Donald Louis  
 Sudduth, Robert L.  
 Sunfield, Alfred T.  
 Swecker, Edward Preston  
 Sydenham, Ronald W.  
 Sykes, Zenas M., Jr.  
 Tarleton, Robert William  
 Tarr, John Albert  
 Taylor, George Richard  
 Taylor, Ronald W.  
 Taylor, Thomas S.  
 Temple, Alan H.  
 Thaubald, Edward John  
 Thomas, Edwin R.  
 Thomas, John Williams  
 Thomas, Larry DeWitt  
 Thompson, Emerson M., Jr.  
 Thompson, Samuel B.  
 Togasaki, Shinabu  
 Tolley, John Alexander  
 Torre, Elias Rico  
 Tracewell, Cleason E.  
 Trebus, Robert S.  
 Trollinger, Raymond R.  
 True, Joel B., Jr.  
 Turner, Roger J. A.  
 Ulsh, Richard O.  
 Umphlett, Clyde V.  
 Umstead, Richard D.  
 Underberg, Alfrede E.  
 Upstad, Paul Joseph  
 Veasey, Lee Garland, Jr.  
 Vick, Charles Booker  
 Vivona, Dominic Anthony  
 Waddell, Oliver Wendell  
 Waldrop, Peter Nelson  
 Walling, Henry Clay  
 Walske, Ron G.  
 Ware, Richard Marshall  
 Watson, Jordan Kimball  
 Weeks, Paul M.  
 Weeks, Thomas W.  
 Weil, Martin Lester  
 Welcome, Allan T.  
 McCormick, S. C.  
 Dunn, N. C.  
 New York, N. Y.  
 Fayetteville, N. C.  
 Jersey City, N. J.  
 Jamaica, N. Y.  
 West Palm Beach, Fla.  
 Manhasset, N. Y.  
 Union City, N. J.  
 Huntington, Pa.  
 Charlotte, N. C.  
 Waynesboro, Va.  
 Reading, Pa.  
 Brevard, N. C.  
 Wilson, N. C.  
 Wyoming, Ohio  
 Pittsburgh, Pa.  
 Greensboro, N. C.  
 San Marino, Calif.  
 Durham, N. C.  
 Durham, N. C.  
 Shaker Heights, Ohio  
 Durham, N. C.  
 Thomasville, N. C.  
 Clover, S. C.  
 Alexandria, Va.  
 Cranford, N. J.  
 Bryan, Texas  
 Franklin, Ind.  
 Teaneck, N. J.  
 Irvington, N. J.  
 Dothan, Ala.  
 Marcellus, N. Y.  
 Yellow Springs, Ohio  
 Charlotte, N. C.  
 Chester, S. C.  
 Culver, Ind.  
 Pen Angyl, Pa.  
 Montgomery, Ala.  
 Miami, Ariz.  
 Washington, D. C.  
 Fort Bragg, N. C.  
 Atlanta, Ga.  
 Jenkins, Ky.  
 Trenton, N. J.  
 South Miami, Fla.  
 Gloucester, Mass.  
 Cleveland, Ohio  
 Scarsdale, N. Y.  
 Elkins, W. Va.  
 St. Louis, Mo.  
 Henderson, N. C.  
 Colorado Springs, Col.  
 Burgaw, N. C.  
 Clarksville, Tenn.  
 Berkeley, Calif.  
 Arlington, Va.  
 Durham, N. C.  
 Shaker Heights, Ohio  
 Irvington, N. J.  
 Burlington, N. C.  
 Miami Beach, Fla.  
 Hartsdale, N. Y.  
 Durham, N. C.  
 Durham, N. C.  
 Durham, N. C.  
 Tampa, Fla.  
 Abercrombie, N. D.  
 Durham, N. C.  
 Seaboard, N. C.  
 Irvington, N. J.  
 Falmouth, Ky.  
 Bryn Mawr, Pa.  
 Durham, N. C.  
 Baltimore, Md.  
 Arlington, Va.  
 Leicester, Mass.  
 Clinton, N. C.  
 Enfield, N. C.  
 Statesville, N. C.  
 Lee, Mass.

Wellons, William Holt  
 Werback, John Arthur  
 Wern, Charles Edward  
 Wiethe, Dale Richard  
 Wilhite, James Gibson  
 Williams, Arthur Clay  
 Williams, Robert H.  
 Wilson, Frank Thomas  
 Wilson, Norman Jay  
 †Wingerter, Ronald  
 Wolfe, Duane Ted  
 Woodard, Jay Westbrook  
 Wright, William Hennies  
 Wyly, James Randolph  
 Wysard, Herbert Parsons  
 Yancey, Henry A., Jr.

Naples, Fla.  
 Garden City, N. Y.  
 Vienna, Ohio  
 Cincinnati, Ohio  
 Paintsville, Ky.  
 Belleville, Ill.  
 Elm City, N. C.  
 Marcellus, N. Y.  
 Philadelphia, Pa.  
 West Orange, N. J.  
 Lexington, N. C.  
 Raleigh, N. C.  
 Louisville, Ky.  
 Port Washington, N. Y.  
 Babylon, N. Y.  
 Charlotte, N. C.

## SENIOR CLASS

(\* Transferred from Triunity College to College of Engineering;

† Transferred from College of Engineering to Trinity College)

Abeyounis, C. John  
 Accardo, Philip Joseph  
 Adams, Charles A., Jr.  
 Adams, Walter L., Jr.  
 Alan, Alan David  
 Alexander, Frank H.  
 Alexander, Lester Fisher, Jr.  
 Allison, Harry R., Jr.  
 Ammerman, Ray Perry  
 Anderson, William Heartly  
 Armstrong, James Calvin  
 Aronberg, Harold  
 Atkins, James H.  
 Atkinson, James Carroll  
 Baker, Charles Ernest  
 Baldwin, Bruce  
 Baldwin, Joseph L.  
 Baptiste, Edward Joseph  
 Barden, Lawrence E.  
 Barnes, John Hyce  
 Barrick, Harry W., Jr.  
 Barry, John L., III  
 Barton, Gerald J.  
 Bass, Robert Homer  
 Bates, Robert K.  
 Bauman, Saul Richard  
 Baylin, Jack Lee  
 Bedell, Richard F.  
 Bell, George C.  
 Benda, George Michael  
 Benson, Bruce Welsh  
 Berger, Robert B.  
 Bernard, Harold, Jr.  
 Berney, Norman Adam  
 Bernstein, Eugene M.  
 Bickel, Robert A.  
 Bishop, William Warren  
 Bland, Billy Ray  
 Bogart, William H.  
 Bonin, Carl Joseph  
 Bornheim, Ralph  
 Bouldin, Gene K.  
 Bourne, J. Philip  
 Bowles, Lawrence Thompson  
 Britt, Robert Dewey, Jr.  
 Brooks, Frederick Phillips  
 Brooks, Len H.  
 Brooks, Thomas Donald  
 Buckley, Thomas T.  
 Buie, James C.  
 Burrell, Robert G.  
 Bush, Bobby Wesley  
 Butrym, Robert Earl  
 Bynum, Frank B., Jr.  
 Byron, Alexander  
 Cannon, Samuel E.  
 Cannon, Stanley Joel  
 Cardozo, Joseph L.  
 Carey, John Jesse  
 Carson, David G.

Washington, N. C.  
 Torrington, Conn.  
 Pleasantville, N. Y.  
 Middletown, N. Y.  
 Miami Beach, Fla.  
 Charlotte, N. C.  
 New Orleans, La.  
 Asheville, N. C.  
 Lakeland, Fla.  
 Glenview, Ill.  
 Parkersburg, W. Va.  
 Ashland, Ky.  
 Gastonia, N. C.  
 Thomasville, Ga.  
 Evanston, Ill.  
 Largo, Fla.  
 Alexandria, Va.  
 Hongkong, China  
 Boone, N. C.  
 Lumberton, N. C.  
 Watsonville, Calif.  
 Plainfield, N. J.  
 Riverdale, N. Y.  
 Danville, Va.  
 Mt. Vernon, N. Y.  
 Memphis, Tenn.  
 Pikesville, Md.  
 Scarsdale, N. Y.  
 Raleigh, N. C.  
 Arlington, Mass.  
 Dayton, Ohio  
 Coalgood, Ky.  
 Johnstown, Pa.  
 New York, N. Y.  
 Baltimore, Md.  
 Wyomissing, Pa.  
 Durham, N. C.  
 Durham, N. C.  
 Elmira, N. Y.  
 Englewood, N. J.  
 Oak Hill, W. Va.  
 High Point, N. C.  
 Charleston, W. Va.  
 Garden City, N. Y.  
 Melbourne, Fla.  
 Greenville, N. C.  
 Wilson, N. C.  
 Little Rock, Ark.  
 Washington, D. C.  
 Fayetteville, N. C.  
 Wyoming, Ohio  
 Lenoir, N. C.  
 McKeesport, Pa.  
 Darlington, S. C.  
 Buzzard's Bay, Mass.  
 Lake Ronkonkoma, N. Y.  
 Coral Gables, Fla.  
 Belleville, N. J.  
 Fort Wayne, Ind.  
 Snyder, N. Y.

- Carter, John Holbrook  
 Carver, George Wilson  
 Cates, Billy Reeves  
 Caudle, Lloyd O.  
 Chapman, William E., III  
 Chappell, James Dodson, Jr.  
 Christy, Robert H.  
 Critton, John E.  
 Clark, Henry B., II  
 Clark, Jonathan Yates  
 Clatterbuck, Ronald D.  
 Claxton, Richard Allen  
 Clifton, Theodore E., Jr.  
 Cole, John Oweu  
 Cole, Thomas T.  
 Coleman, Robert A.  
 Cook, Philip Torrence  
 Crady, George A.  
 Crawford, Tommy York  
 Crumpler, Benton Eugene, Jr.  
 Curley, John Edward  
 Dalton, Robert Erwin  
 Darkis, Thomas Morris  
 Darling, Glenn A.  
 Davidson, Williams T., Jr.  
 Davis, Robert P.  
 Deau, William H.  
 Deimling, Keston John, Jr.  
 Dellenbarger, Lynn Edwin, Jr.  
 Denuy, George Richard  
 Denunzio, Don M.  
 Detrich, Virgil D.  
 Dewan, Edmond Maurice  
 Diamond, Paul H.  
 Dickerson, John William  
 Dickey, Carl O., Jr.  
 Dodge, Paul G.  
 Donigan, William Leonard  
 Driscoll, Robert William  
 Dufort, Robert Hamilton  
 Duncan, John N., Jr.  
 Earnest, William Lee  
 Earnhardt, Wiley J. P., Jr.  
 Eddy, James Rollins  
 Edney, James M.  
 Edwards, Geoffrey  
 Elder, Thomas David  
 Eldridge, William Butler  
 Ertley, Ronald David  
 Erwin, Albert R.  
 Evans, Phillip William  
 Fait, H. C. Davidson  
 Fansler, Richard E.  
 Farley, Francis C.  
 Farquhar, William Edward  
 Farrington, John K.  
 Faunce, John P.  
 Feild, Richard W.  
 Ferguson, John Bedkett  
 Fickinger, Thomas E.  
 Field, Herbert Clinton  
 Finch, Brown P.  
 Finley, Earl B., Jr.  
 Fisher, Robert Warren  
 Fleming, William M.  
 Foremau, Thomas L.  
 Fox, George Charles, Jr.  
 Fox, Randolph Val  
 Freedy, Robert J.  
 Fullerton, Philip Charles  
 Gaby, Donald Charles  
 Gage, Gaston H.  
 Garrett, John W., III  
 Gatewood, Willard Badgette, Jr.  
 Geiger, William H.  
 Getz, Robert Samuel  
 Gibbons, John David  
 Gilbert, Charles Elmer  
 Gilbert, E. Reid  
 Gilbert, Joseph C.  
 Gilmore, Charles Nelson  
 Milford, N. J.  
 Harbourton, N. J.  
 Durham, N. C.  
 Clemmons, N. C.  
 York, Pa.  
 Marshallville, Ga.  
 Andrews, N. C.  
 Birmingham, Mich.  
 Reidsville, N. C.  
 Leesburg, Fla.  
 Roanoke Rapids, N. C.  
 Pittsburgh, Pa.  
 Cohasset, Mass.  
 Forest City, N. C.  
 Asheville, N. C.  
 Pottsville, Pa.  
 Durham, N. C.  
 Jacksonville, Fla.  
 Lincoln, N. C.  
 Bluefield, W. Va.  
 Birmingham, Mich.  
 Wiuter Park, Fla.  
 Durham, N. C.  
 Cleveland Hts., Ohio  
 Annapolis, Md.  
 Pottsville, Pa.  
 Live Oak, Fla.  
 River Forest, Ill.  
 Daytona Beach, Fla.  
 Richmond, Ind.  
 Louisville, Ky.  
 Corpus Christi, Tex.  
 Forest Hills, N. Y.  
 Cedarhurst, N. Y.  
 Danville, Va.  
 Toledo, Ohio  
 Rochester, N. Y.  
 W. Belmar, N. J.  
 Charlotte, N. C.  
 Richmond, Va.  
 Raleigh, N. C.  
 Bethesda, Md.  
 Edenton, N. C.  
 Collinsville, Conn.  
 Hendersonville, N. C.  
 Westfield, N. J.  
 Scotia, N. Y.  
 Burlington, N. C.  
 Kingston, Pa.  
 Concord, N. C.  
 Dover, Del.  
 Baltimore, Md.  
 Rocky River, Ohio  
 Charleston, W. Va.  
 Grosse Pointe, Mich.  
 Thomasville, N. C.  
 Durham, N. C.  
 Baltimore, Md.  
 Groton, Mass.  
 Coudersport, Pa.  
 Martinsville, Va.  
 Thomasville, N. C.  
 Roanoke, Va.  
 Wauchula, Fla.  
 Philadelphia, Pa.  
 Durham, N. C.  
 Teaneck, N. J.  
 New Orleans, La.  
 Durham, N. C.  
 Hendersonville, N. C.  
 Homestead, Fla.  
 Charlotte, N. C.  
 Warrenton, N. C.  
 Pelham, N. C.  
 Leesburg, Fla.  
 Brooklyn, N. Y.  
 Maplewood, N. J.  
 Wilmington, N. C.  
 Germantown, N. C.  
 Havre de Grace, Md.  
 Belle Vernon, Pa.



Glenn, James H.  
 Gluck, Morton Chester  
 Goebert, Herbert William, Jr.  
 Goldstein, Harold M.  
 Gordon, Bruce Joel  
 Gordon, Jasper M.  
 Gorrell, Robert Pinkney  
 Gould, Donald W.  
 Grant, Truett Allen  
 Graves, Charles E.  
 Green, Ray G., Jr.  
 Greenberg, Allen  
 Greenberg, Larry  
 Greene, John C.  
 Greenwald, Stuart M.  
 Greer, Dewey H.  
 Gregory, Bobbie L.  
 Griesenbeck Richard William  
 Grillo, Robert L.  
 Grinaker, Arne James  
 Groat, Richard M.  
 Gwyn, Thomas M.  
 Hager, Gerald Leonard  
 Haislip, Donald Ray  
 Hall, James Samuel, Jr.  
 Hall, Robert Rhett  
 Hall, Robert V.  
 Hamilton, James W.  
 Hanes, William P.  
 Hanner, Richard R.  
 Hansbarger, Luther Clark  
 Haskell, Weston W.  
 Hedley, Gilbert P.  
 Henry, Granville Conner, III  
 Herndon, William Wesley  
 Herron, John  
 Hicks, Samuel Alfred  
 Higgins, Edward Alton  
 Hill, Boyd H., Jr.  
 Hill, Thomas Fuller, Jr.  
 Hilliard, Roy C.  
 Hite, Charles Land  
 Hobby, Lovic W.  
 Hobson, George  
 Hodgins, John Nolan  
 Hoffmann, Theodore Schott  
 Hogue, David G.  
 Hollowell, James Curtis  
 Hooker, Alfred Frank, Jr.  
 Houk, J. Edwin  
 Houser, Roland B.  
 Howard, Clarence Edward  
 Howard, Henry duBignon  
 Howe, Bobby Edward  
 Howe, William Albert, Jr.  
 Howell, Eugene Davis  
 Howell, Ray R.  
 Hull, Robert Miller  
 Humphrey, Joseph W. H.  
 Hurst, David E.  
 Hurst, Lawrence Ronald  
 Inman, Harry E.  
 Innes, Thomas C.  
 Jackson, Nelson Pointer  
 Jacobs, Roy Marshall  
 James, Charles H.  
 James, W. Scott, Jr.  
 Jensen, Robert Leif  
 Johnson, Henry Allen  
 Johnson, Richard A.  
 Jones, Robert W.  
 Jordan, Terrell Franklin  
 Keller, Donald Holland  
 Keller, Thomas F.  
 Kennemore, Douglas Erwin  
 Kesler, William E.  
 Keziah, John W.  
 King, John Thomas  
 Kintz, George Jerry  
 Knabe, John R.  
 Knight, Kinchen Coffield  
 Washington, D. C.  
 New York, N. Y.  
 Coatesville, Pa.  
 Atlanta, Ga.  
 Hamden, Conn.  
 Durham, N. C.  
 Greensboro, N. C.  
 Tampa, Fla.  
 High Point, N. C.  
 Staten Island, N. Y.  
 Durham, N. C.  
 Danville, Va.  
 Atlanta, Ga.  
 Kansas City, Mo.  
 Middletown, N. Y.  
 High Point, N. C.  
 Detroit, Mich.  
 Pelham, N. Y.  
 Fairlawn, N. J.  
 St. Petersburg, Fla.  
 Pittsburgh, Pa.  
 Lenoir, N. C.  
 Detroit, Mich.  
 Rocky Mount, N. C.  
 Fayetteville, N. C.  
 Salisbury, N. C.  
 Salisbury, N. C.  
 Winter Park, Fla.  
 Walkertown, N. C.  
 Asheville, N. C.  
 Huntington, W. Va.  
 Towaco, N. J.  
 Leonia, N. J.  
 Decatur, Ga.  
 Milledgeville, Ga.  
 St. Petersburg, Fla.  
 Worcester, N. Y.  
 Framingham, Mass.  
 St. Petersburg, Fla.  
 Durham, N. C.  
 Middlesex, N. C.  
 Henderson, N. C.  
 Atlanta, Ga.  
 Philadelphia, Pa.  
 Thomasville, N. C.  
 Dunbar, W. Va.  
 Croton-on-Hudson, N. Y.  
 Silver Spring, Md.  
 Martinsville, Va.  
 Sanford, Fla.  
 Weaverville, N. C.  
 Clinton, N. C.  
 Savannah, Ga.  
 Shelby, N. C.  
 Pittsburgh, Pa.  
 Jacksonville, Fla.  
 Poland, Ohio  
 Madison, N. J.  
 Ellwood City, Pa.  
 Middlesboro, Ky.  
 Matoaka, W. Va.  
 Bayside, N. Y.  
 Asheville, N. C.  
 Durham, N. C.  
 Bronx, N. Y.  
 Wildwood, N. J.  
 Waynesboro, Pa.  
 Staten Island, N. Y.  
 Weldon, N. C.  
 Dayton, Ohio  
 Beacon, N. Y.  
 Atlanta, Ga.  
 Plant City, Fla.  
 Greenwood, S. C.  
 Greenville, S. C.  
 Fuquay Springs, N. C.  
 Burlington, N. C.  
 Gastonia, N. C.  
 Kingston, Pa.  
 Baltimore, Md.  
 Whitakers, N. C.

- Knotts, Clarence Cole, Jr.  
 Knowles, Francis, Jr.  
 Kramme, Gerald Andrew  
 Kulpan, James Neil  
 Lacaruba, Chris  
 Lackey, Dixon A., Jr.  
 Lane, Henry Jackson, Jr.  
 Larsen, Hyer P.  
 Lassiter, Vernon C.  
 Latimer, Richard Lee  
 Lawrence, James D.  
 Lea, William P., Jr.  
 Leach, George Carson  
 Leeaphon, Don  
 Lefler, Bayne Wesley, Jr.  
 Lenox, George Arthur, III  
 Leonard, John Dunbar, Jr.  
 Lerps, David Arthur  
 Levergood, Charles C.  
 Lewis, Joseph William, Jr.  
 Lineberger, Joe Glenn  
 Loane, Jabez Whitford  
 Logan, James M.  
 Long, Sherman Edgar, Jr.  
 Looper, Charles B.  
 Lowndes, John Foy  
 Luck, Jean Magill  
 Lutton, Gerald  
 Lynch, George C.  
 Maddox, Clyde Overton  
 Marks, Dennis G.  
 Marshall, Robert E.  
 Martin, Charles Edward  
 Martin, Donald F.  
 Massey, James Andrew, Jr.  
 Mathes, John Franklin  
 Maus, Lewis McKinney  
 McAdams, J. Richard  
 McClain, Joseph Adolphus, III  
 McCluskey, John C.  
 McFarling Harry Montgomery, Jr.  
 Means, Edward D., Jr.  
 Mellin, William D.  
 Michael, Robert F.  
 Michalek, Donald Richard  
 Miller, Macon Patterson, Jr.  
 Miller, Thomas T.  
 Mitchell, Billy P.  
 Montgomery, Douglas Gale  
 Moore, Ellis William  
 Morrison, Norton H.  
 Morse, Theodore F.  
 Moseley, Robert G.  
 Mozingo, William G.  
 Mueller, John George  
 Murkett, Philip T.  
 Murray, Charles William  
 Naugle, David R.  
 Naylor, Edward J.  
 Neumeister, Leslie L.  
 Nial, George A.  
 Northrop, Samuel  
 Olivera, Hugo Valentin  
 Ormand, William Leon  
 Ost, John W.  
 Painter, William Edward  
 Parrish, Fred K.  
 Patterson, James Thomas  
 Peck, Kenneth Owen  
 Powell, Albert Henry, Jr.  
 Raiford, William Patrick, Jr.  
 Rambo, J. Warren  
 Ratliff, Dale  
 Redmond, James Seymour, Jr.  
 Reece, Benny Ramon  
 Richmond, James B.  
 Ricker, Hunt N.  
 Rist, Monroe D.  
 Ritch, James Earle, Jr.  
 Rivers, Thomas Milton  
 Roarick, Marshall Eugene  
 Hamlet, N. C.  
 Penns Grove, N. J.  
 Monroeville, N. J.  
 Norfolk, Va.  
 Phillipsburg, N. J.  
 Asheville, N. C.  
 Henderson, N. C.  
 Woodbridge, N. J.  
 Winston-Salem, N. C.  
 Bethesda, Md.  
 Macon, Ga.  
 Lynchburg, Va.  
 Haw River, N. C.  
 Bangkok, Siam  
 Lowell, N. C.  
 Ridgefield Park, N. J.  
 Durham, N. C.  
 Tuckahoe, N. Y.  
 Stroudsburg, Pa.  
 Fall River, Mass.  
 Maiden, N. C.  
 Ruxton, Md.  
 Asheville, N. C.  
 Durham, N. C.  
 Gastonia, N. C.  
 Durham, N. C.  
 Orange, N. J.  
 Harmony, Pa.  
 Anchorage, Alaska  
 Fullerton, Pa.  
 New York, N. Y.  
 Brooklyn, N. Y.  
 Oxford, Pa.  
 Atlanta, Ga.  
 Smithfield, N. C.  
 Durham, N. C.  
 Reidsville, N. C.  
 Burlington, N. C.  
 Durham, N. C.  
 Wheeling, W. Va.  
 Danville, Va.  
 Washington, D. C.  
 Gardner, Mass.  
 Greensboro, N. C.  
 Westfield, Mass.  
 Durham, N. C.  
 Annapolis, Md.  
 Fairmont, N. C.  
 Webster Groves, Mo.  
 Andover, Mass.  
 Madison, Conn.  
 Elkins Park, Pa.  
 Bluefield, W. Va.  
 La Grange, N. C.  
 Okmulgee, Okla.  
 Wheeling, W. Va.  
 Amsterdam, N. Y.  
 New York, N. Y.  
 Bayonne, N. J.  
 Glasgow, Ky.  
 Ft. Lauderdale, Fla.  
 Greenville, N. C.  
 Vedado, Havana, Cuba  
 Durham, N. C.  
 Oradell, N. J.  
 Mt. Holly, N. C.  
 Durham, N. C.  
 Swissvale, Pa.  
 Ft. Lauderdale, Fla.  
 Durham, N. C.  
 Greensboro, N. C.  
 Greenwood, S. C.  
 Hinton, W. Va.  
 Asheville, N. C.  
 Arden, N. C.  
 Hillsboro, N. C.  
 Tampa, Fla.  
 Erie, Pa.  
 Charlotte, N. C.  
 Anderson, S. C.  
 West Islip, N. Y.

- Roberts, Ivon Elwood  
 Robinson, Carroll M.  
 Robinson, William Gale  
 Rockwood, John Jr.  
 Rodgers, Nolan H.  
 Rogers, Robert Taylor  
 Rosenbaum, Norman M.  
 Rosenberg, John M.  
 Rosenmund, Robert Alfred  
 Rosenson, Leon M.  
 Rosenthal, Joseph Stone  
 Rovegno, Donald Cowie  
 Rowe, Arthur Wilson  
 Rudge, William Jerome, III  
 Sack, Martin, Jr.  
 Sanders, William Eugene  
 Santamaria, Angelo Rogne  
 Saylor, Thomas P.  
 Schaffer, William Ronald  
 Schafroth, Donald M.  
 Scheffer, Miles Howard  
 Schellenger, Norman D.  
 Schoonmaker, Fred W.  
 Schwartz, Ronald M.  
 Seaton, J. Ralph  
 Self, Joseph Morrison  
 Sharer, R. Kenyon  
 Sharpe, John Frank  
 Sikes, Lyndon Ogburn  
 Smith, James Charles  
 Smith, Sidney Rufus, Jr.  
 Smith, Veleair Courtlandt, II  
 Smith, Walter L.  
 Smith, Whitman Erskine  
 Sommers, Richard L.  
 Spearman, Cecil E.  
 Spivey, Bob A.  
 Spofford, Donald Edward  
 Stahl, Frederick Andrew  
 Stark, Lawrence W.  
 Stark, Richard Alan  
 Stark, Rufus H.  
 Starnes, William B.  
 Stathacos, Eustace J.  
 Stewart, Thomas, III  
 Stone, John William  
 Strauch, David M.  
 Strickland, Donald Bennett  
 Stuart, Eugene W.  
 Stubbs, Robert W.  
 Sutton, John Hardy, Jr.  
 Swain, Joe Oliver  
 Swan, Hugh Guion  
 Sward, Gilbert L.  
 Swing, Mervin, Jr.  
 Sykes, Richard L.  
 Tate, John Bibb  
 Taylor, David W.  
 Taylor, George F.  
 Taylor, James I., Jr.  
 Taylor, William Andrew  
 Tenhouten, Edward William  
 Tice, James Richard  
 Tillman, Roy Davis  
 Tolleson, George C.  
 Torgersen, Mathias S., Jr.  
 Trulove, John Robert  
 Tymosko, Donald Michael  
 Underwood, Roland H.  
 Upchurch, Carlton E.  
 Van Deventer, Robert Rinard  
 Vann, James Earl  
 Varner, Robert Milton, Jr.  
 Wacker, August Herbert  
 Wainwright, Steve A.  
 Wall, Patterson  
 Wallace, Alston A.  
 Wallace, Edward O.  
 Watov, Richard H.  
 Watson, Charles Sullivan  
 Weiss, Alfred Hans, Jr.  
 Mt. Holly, N. C.  
 West Palm Beach, Fla.  
 Smithfield, Va.  
 Atlanta, Ga.  
 Pikesville, Md.  
 Durham, N. C.  
 Norfolk, Va.  
 Gastonia, N. C.  
 Rockaway, N. J.  
 Washington, D. C.  
 Durham, N. C.  
 Birmingham, Ala.  
 Nutley, N. J.  
 Lenox, Mass.  
 Jacksonville, Fla.  
 Albemarle, N. C.  
 Baltimore, Md.  
 Bridgeport, Conn.  
 Camp Pickett, Va.  
 Havertown, Pa.  
 Forest Hills, N. Y.  
 Miami Beach, Fla.  
 Lander, Wyo.  
 Stamford, Conn.  
 Uniontown, Pa.  
 Greensboro, N. C.  
 Cleveland, Ohio  
 Greensboro, N. C.  
 Greensboro, N. C.  
 Wilmington, N. C.  
 Greensboro, N. C.  
 Charleston, W. Va.  
 Badin, N. C.  
 Albemarle, N. C.  
 Kingsport, Tenn.  
 Hinsdale, Ill.  
 Suffolk, Va.  
 Pensacola, Fla.  
 Manhasset, L. I., N. Y.  
 Ridgewood, N. J.  
 Ridgewood, N. J.  
 Greenville, N. C.  
 Fuquay Springs, N. C.  
 Raleigh, N. C.  
 Bridgeport, Conn.  
 Raleigh, N. C.  
 Benton, Pa.  
 Rich Square, N. C.  
 Tampa, Fla.  
 Collingswood, N. J.  
 La Grange, N. C.  
 Asheville, N. C.  
 New Bern, N. C.  
 Chevy Chase, Md.  
 Philadelphia, Pa.  
 Suffolk, Va.  
 La Grange, Ga.  
 Durham, N. C.  
 Henderson, N. C.  
 Tarboro, N. C.  
 Durham, N. C.  
 Traverse City, Mich.  
 Charlotte, N. C.  
 Mt. Vernon Springs, N. C.  
 Greenville, S. C.  
 Durham, N. C.  
 Pinnacle, N. C.  
 Seymour, Conn.  
 Lake Worth, Fla.  
 Durham, N. C.  
 Princeton, N. J.  
 Clinton, N. J.  
 Mooresville, N. C.  
 Jamaica, N. Y.  
 Indianapolis, Ind.  
 Birmingham, Mich.  
 Gainesville, Fla.  
 Havertown, Pa.  
 Trenton, N. J.  
 Anderson, S. C.  
 Brevard, N. C.

Welch, Bernie B.  
 Welchman, Charles B.  
 Weldou, Robert Walter  
 Werber, William W.  
 White, Robert Louis  
 White, Robert T.  
 Whitescarver, James Field, Jr.  
 Wiley, Donald Kent  
 Williams, Edward L.  
 Wilson, C. Vaughn  
 Wilson, Walter Q.  
 Winfield, Gordon T., Jr.  
 Winslow, William Troy  
 Yarbrough, Charles C.  
 Young, Alvin M.  
 Younts, Robert Wesley  
 Zerby, William Elwood  
 Zimmerman, Joe  
 Zintbaum, William E.

Wiuston-Salem, N. C.  
 Ridgewood, N. J.  
 Meriden, Conn.  
 College Park, Md.  
 Belmont, Mass.  
 Masonville, N. J.  
 Baltimore, Md.  
 Erie, Pa.  
 Weymouth, Mass.  
 Grove City, Pa.  
 Greenville, N. C.  
 Petersburg, Va.  
 Goldsboro, N. C.  
 Concord, N. C.  
 Trenton, N. J.  
 High Point, N. C.  
 Reading, Pa.  
 Leesburg, Va.  
 Newton, N. C.

## SPECIAL STUDENTS

Cates, Jerry H.  
 Chambers, Robert T.  
 Cromartie, Martin L.  
 Davis, Albert H.  
 Featherston, Alwyn L.  
 Gott, Garth G.  
 Harris, Elisha Carter  
 Kelley, George E.  
 King, Joseph Edward  
 Knedlick, Ralph W.  
 Malone, Robert W.  
 Mauess, Howard Fletcher  
 McGrath, Donald C.  
 McKenzie, Claude Fleatus  
 Morgan, Charles Graeme  
 Monnie, John Robert, Jr.  
 O'Neill, George Timothy  
 Pitman, John Matthews  
 Price, Ralph S.  
 Sarasin, Pow  
 Shuster, Charles Willard  
 Strickland, William Ruffin  
 Turner, Malcom E., Jr.  
 Wicker, Max William  
 Woodward, Fletcher D., Jr.

Richmond, Va.  
 Rockingham, N. C.  
 Tarboro, N. C.  
 Durham, N. C.  
 Greensboro, N. C.  
 Greensboro, N. C.  
 Durham, N. C.  
 Durham, N. C.  
 Durham, N. C.  
 Greensboro, N. C.  
 Park Ridge, Ill.  
 Durham, N. C.  
 Durham, N. C.  
 Durham, N. C.  
 Napa, Calif.  
 Portsmouth, Va.  
 Raleigh, N. C.  
 Williamsburg, Va.  
 Durham, N. C.  
 Washington, D. C.  
 Glen Rock, N. J.  
 Durham, N. C.  
 Durham, N. C.  
 Aberdeen, N. C.  
 Charlottesville, Va.

*College of Engineering*

## FRESHMAN CLASS

(\* Transferred from Trinity College to College of Engineering;  
 † Transferred from College of Engineering to Trinity College)

Albano, Joseph Patrick  
 † Alexander, Robert Bainbridge  
 Alger, Robert Jerrell  
 Amos, Richard Glenu  
 Anderson, James Edward  
 Anderson, William Stafford  
 Armbrust, Robert Kenneth  
 Baker, Donald Holmes  
 Baker, Silas Kenneth, Jr.  
 Baldwin, Hobart Everett, Jr.  
 Ballantyne, Douglas Bryan  
 Barbone, Stephen Gerard  
 Bass, Herbert Dillard  
 Beck, William David, Jr.  
 † Benjamin, Emanuel Victor, III  
 Bennett, James Leonard, Jr.  
 Black, John Martin  
 † Black, William  
 Berger, Junius Curtice  
 † Bottoms, Arnold  
 Boyd, Gordon Dale  
 Bradfield, Todd S.  
 Bradley, Robert Fred  
 Brannock, Robert  
 Briggs, Norman H.

Springfield, Mass.  
 Greensboro, N. C.  
 St. Louis, Mo.  
 Cleveland, Ohio  
 Trappe, Pa.  
 Beaver, Pa.  
 Scranton, Pa.  
 Baltimore, Md.  
 Washington, D. C.  
 Chelmsford, Mass.  
 Waterbury, Conn.  
 New York, N. Y.  
 Greensboro, N. C.  
 Winston-Salem, N. C.  
 New Orleans, La.  
 Durham, N. C.  
 Durham, N. C.  
 Charlotte, N. C.  
 Richmond, Va.  
 Martinsville, Va.  
 Huntington, W. Va.  
 Asheville, N. C.  
 Plainfield, N. J.  
 Burlington, N. C.  
 Jacksonville, Fla.

Brockwell, Sterling Monroe, Jr.  
 Burnham, Robert Guy  
 Becker, Richard Hawthorne  
 †Carlisle, Richard Marvin, Jr.  
 Cartier, Philip P.  
 Cavanaugh, James Arthur, Jr.  
 Chapman, Robert  
 Clark, Robert Nicholson  
 Clark, Robert Walker  
 †Copper, Walter Logan, Jr.  
 Cowell, Edward Duke, Jr.  
 Cox, Seth  
 Cunningham, Arthur William  
 Dale, Lucian Jackson, Jr.  
 Dan, Charles George  
 Deakin, Derrick Birdseye  
 Deloatch, Sidney Columbus, Jr.  
 Derrick, Franklin Lee, Jr.  
 Dickel, Kinsey S., Jr.  
 Dix, Max Lee  
 Downey, Richard K.  
 Eadie, Robert  
 Ellis, John David  
 †Ellis, Richard Mallam, III  
 Eschenbach, Henry Anthony  
 Evans, George Jones, Jr.  
 Finn, Paul  
 Flyum, James Kenneth  
 †Forbes, James, Jr.  
 †Foxworth, David Holman  
 Fulcomer, James M.  
 Genter, David L.  
 †Gillcrist, Thomas James  
 Gill, David Kent  
 Godfrey, David B., Jr.  
 Gray, Edward Wygand, Jr.  
 Griffiths, Donald Cameron  
 †Gumb, Albert Melvin  
 Gunter, Edgar Jackson, Jr.  
 Haack, Allan Harry  
 †Hall, Lorne F.  
 Hall, Robert Sterling  
 Hardin, James  
 Haslett, Darden Evans  
 Hauser, Charles R.  
 Hayes, Stuart W.  
 Hensey, Charles McKinnon  
 Hetrick, John Paterson  
 †Hipp, Carnie Paris, Jr.  
 Hogan, Ed T.  
 Holloman, James Howard  
 Hood, Bruce  
 Howell, Jacob Carney, Jr.  
 Huffines, Elbert C., Jr.  
 Izaguirre, Simon Alfredo  
 Johannessen, Robert  
 Johnson, Ernest P.  
 Johnstone, Montgomery Inge  
 Jones, Carlos Raul  
 Jones, Julio Rafael  
 Kemp, Thomas Allan  
 King, John Hill  
 King, Paul Douglas, Jr.  
 Kirkman, Thomas Carlton, Jr.  
 Knauss, Donald Thomas  
 Koontz, Earl Carlton  
 Korf, John Randolph  
 †Knake, Philipp Bernhard Konrad, Jr.  
 Kumpf, William August  
 †Lambdin, James Floyd  
 Lane, James Henry  
 †Lanier, Theodore Bailey  
 Lee, Richard Carlton  
 Leon Ponte, Odoardo, Jr.  
 Lewis, Nicholas Alda  
 Little, William Albert  
 Long, Norwood G.  
 Longley, John Daniel  
 Manuel, Richard Duffy  
 Marston, Martin Marshall, Jr.  
 Martin, Robert S.  
 Durham, N. C.  
 Durham, N. C.  
 New York, N. Y.  
 Montclair, N. J.  
 Wayne, Pa.  
 Goldsboro, N. C.  
 Burlington, N. C.  
 Elkton, N. C.  
 Greensboro, N. C.  
 Trenton, N. J.  
 Elizabeth City, N. C.  
 Sanford, N. C.  
 Charlotte, N. C.  
 Charlotte, N. C.  
 Salem, Ohio  
 Signal Mt., Tenn.  
 Roanoke Rapids, N. C.  
 Washington, D. C.  
 Yardley, Pa.  
 Portsmouth, Va.  
 Durham, N. C.  
 Rahway, N. J.  
 E. Aurora, N. Y.  
 Asheville, N. C.  
 Linbrook, L. I., N. Y.  
 Asheville, N. C.  
 Hudson, N. Y.  
 Ft. Lauderdale, Fla.  
 Oceanside, N. Y.  
 Norfolk, Va.  
 Upper Montclair, N. J.  
 Pittsburgh, Pa.  
 Suffolk, Va.  
 Chevy Chase, Md.  
 Lowell, Mass.  
 New Bern, N. C.  
 Scranton, Pa.  
 Wilmington, N. C.  
 Briar Cliff Manor, N. Y.  
 Brooklyn, N. Y.  
 New Britain, Conn.  
 Huntington, W. Va.  
 Canton, N. C.  
 Winston-Salem, N. C.  
 Durham, N. C.  
 Netherlands, West Indies  
 Maxton, N. C.  
 Anderson, S. C.  
 Charlotte, N. C.  
 Durham, N. C.  
 Raleigh, N. C.  
 Lenoir, N. C.  
 Silver Spring, Md.  
 Fairmont, N. C.  
 Caracas, Venezuela, S. A.  
 Indianapolis, Ind.  
 Toronto, Canada  
 Mobile, Ala.  
 Havana, Cuba  
 Havana, Cuba  
 Hamilton, Ohio  
 Maryville, Tenn.  
 Morehead City, N. C.  
 High Point, N. C.  
 Allenton, Pa.  
 Lexington, N. C.  
 Washington, D. C.  
 Lynchburg, Va.  
 Conshohocken, Pa.  
 Princeton, N. J.  
 Arlington, Va.  
 Rocky Mount, N. C.  
 Atlanta, Ga.  
 Caracas, Venezuela, S. A.  
 Charlotte, N. C.  
 Washington, Pa.  
 College Park, Md.  
 Nashville, Tenn.  
 Washington, D. C.  
 Washington, D. C.  
 Goldsboro, N. C.



Marvin, Lewis Beach  
 Masten, Lawrence Everette  
 †McCreery, Arley Joe  
 McLean, William Russell  
 Mebane, Robert Alan  
 Merz, Harry  
 Micol, Giovanni Enrico  
 Mohler, Edward Keene  
 Morton, Charles Frederick  
 Mousmoules, George B.  
 Nelson, Donald Norman  
 Newbill, Charles Corbin  
 Nicholson, David Lloyd  
 Nielson, Peter Tryon  
 Oberle, Robert Hart  
 Outten, Wilson Carl, Jr.  
 Patterson, James S.  
 Pegg, Jabez Gilbert  
 Perry, Norman H.  
 Pettitt, Robert Dunlap  
 Pickett, Richard Crumpler  
 †Pirret, Peter Douglas  
 Player, Richard Lewis  
 Porter, John Steele, Jr.  
 †Powell, William C.  
 Proctor, James Faust  
 Pullem, Richard  
 Rabil, Albert  
 Rehor, Ralph G.  
 Riggsbee, Commie  
 Rouse, William Francis  
 Rowley, William Warren, Jr.  
 Rudisill, John C.  
 Runyon, David Milton  
 Ruscyk, Joseph Alan  
 Russ, William Marcellus  
 †Sampley, N. Paul  
 Scheid, Harold Donald  
 Schlamm, George F.  
 Schoenhardt, Ronald B.  
 Schroeder, Richard  
 Sellers, John Peterson  
 Smith, David Thomas  
 Stanley, Donald Hugh  
 Stevens, Bobby David  
 Stevens, Chandler Harrison, Jr.  
 †Sumner, Thomas Blount  
 Swartz, William John  
 Teller, William K.  
 Thomas, Wayne Philip  
 Toomey, Richard George  
 Urckfütz, James Leland  
 Vance, Virgil Davies  
 Van Laer, Charles Edgar  
 †Veit, Herman Carl  
 Voehl, Richard Kurt  
 Ward, Bowden Wilson, Jr.  
 Warlick, George William  
 Watkins, Frederick L.  
 Weidmann, Frederick Henry  
 Wellman, Charles Alex  
 Wennerstrom, Arthur John  
 Williams, John Culbreth, III  
 Wilson, Robert Burns  
 Wingfield, Don  
 Wolcott, Jay K.  
 Wood, Stacy Allen  
 Worth, William Paul  
 Yarborough, Joseph Coleman, Jr.

Sands Pt., L. I., N. Y.  
 Winston-Salem, N. C.  
 White Sulphur Springs, W. Va.  
 Donedin, Fla.  
 Fayetteville, N. C.  
 Collegeville, Pa.  
 Hillsboro, N. C.  
 Ft. Lauderdale, Fla.  
 Ann Arbor, Mich.  
 Washington, D. C.  
 Tuckahoe, N. Y.  
 Guatemala City, Guatemala  
 Orlando, Fla.  
 Durham, N. C.  
 Little Rock, Ark.  
 Collingwood, N. J.  
 Albany, N. Y.  
 Nashville, Tenn.  
 Durham, N. C.  
 Port Washington, N. Y.  
 Durham, N. C.  
 Atlanta, Ga.  
 Fayetteville, N. C.  
 Jacksonville, Fla.  
 Ahoskie, N. C.  
 Durham, N. C.  
 Huntington, W. Va.  
 Rocky Mount, N. C.  
 Shaker Hts., Ohio  
 Durham, N. C.  
 Goldsboro, N. C.  
 New York, N. Y.  
 Hanover, Pa.  
 Port Washington, N. Y.  
 New Britain, Conn.  
 Raleigh, N. C.  
 Jensen Beach, Fla.  
 Lancaster, Pa.  
 Durham, N. C.  
 New York, N. Y.  
 Bronx, N. Y.  
 Toronto, Ontario, Canada  
 Asheville, N. C.  
 Mount Airy, N. C.  
 Durham, N. C.  
 Yardley, Pa.  
 Hertford, N. C.  
 Overland Park, Kan.  
 Bloomfield, N. J.  
 Leaksville, N. C.  
 Gastonia, N. C.  
 Penfield, N. Y.  
 So. Fort Mitchell, Ky.  
 High Falls, N. Y.  
 Huntington Valley, Pa.  
 Hewlett, N. Y.  
 Birmingham, Ala.  
 Hickory, N. C.  
 Atlanta, Ga.  
 Bloomfield, N. J.  
 Birmingham, Ala.  
 Towson, Md.  
 Fayetteville, N. C.  
 Brandywine, Md.  
 New Castle, Pa.  
 Warren, Ohio  
 Coats, N. C.  
 Mount Airy, N. C.  
 Anderson, S. C.

### SOPHOMORE CLASS

(\* Transferred from Trinity College to College of Engineering;  
 † Transferred from College of Engineering to Trinity College)

Adams, Baron B., Jr.  
 Albaneze, Ireney M.  
 †Albert, Karl  
 \*Aldridge, Fred Cutler, Jr.  
 Andrews, Edwin Thomas  
 Ballard, Charles L.  
 Bauer, Bruce T.

Durham, N. C.  
 Brooklyn, N. Y.  
 Goldsboro, N. C.  
 Wayne, Pa.  
 Durham, N. C.  
 White Sulphur Springs, W. Va.  
 Holyoke, Mass.

Bauer, James A.  
 Baxley, William Allison  
 Bayless, Thomas Gardner, Jr.  
 Beckett, Ralph Leonard  
 Bellinger, Dan Eddins  
 Bickel, Karl  
 Bloom, Robert H.  
 Blue, Frank Lee, III  
 Bocock, Robert W.  
 Bolster, Dennis Richard  
 Brubaker, Joseph DeVinney  
 Bukowitz, Moritz  
 Caldwell, John W.  
 Calhoun, John Henry  
 Cannon, Robert Lamar  
 Carter, Charles Tennyson  
 Cates, Dalton Reede  
 Caviness, Lewis L.  
 Chambers, Robert Miller  
 †Copeland, Richard James  
 Corley, Jack Lee  
 Crawford, Frederick R.  
 DeWitt, David P.  
 Dickinson, Walter  
 DuBose, David St. Pierre, Jr.  
 Elston, Alan C.  
 Fisher, Samuel J.  
 Foard, Thomas Reynolds  
 George, Rhett T., Jr.  
 Griswold, Lyman W.  
 Halvorson, Thomas Lee  
 †Hambrick, Herman Casto, II  
 Hamilton, Edward Arden  
 Hannay, Burton Eugene  
 Hansen, Billy M.  
 Harrison, Douglas Chester  
 Hart, Norman James  
 Haupt, Jerry R.  
 Hiebert, Adoniram Cadwell  
 Higgs, Jake K.  
 Hines, O. Taylor  
 Holmes, Richard L.  
 Howell, Lawrence B.  
 Huang, Richard Shih-chiu  
 Hughes, Carroll Thornton, Jr.  
 Huling, George  
 Johnson, Walter C.  
 Kay, Frank A.  
 Keever, Eugene Rogers  
 King, Norwood Jack  
 Kraus, Richard Joseph  
 Lackey, Charles Yount  
 Larsen, John E.  
 Lasher, Howard Rae  
 Lawrence, George Bryant M.  
 Leclercq, Robert Francis  
 Linthicum, William Emmett  
 Lischka, Johannes Richard  
 MacEwen, John R.  
 Maxwell, Richard  
 †McMullen, Mirril Alvah  
 †Newell, Thomas Drinkard, III  
 Norwood, Eurie Lonnie, Jr.  
 Oastler, Bert Robert  
 Osorio, Hector M.  
 Olds, Ray Mortimer  
 Olive, Julian Grey  
 Parkerson, John Beveridge  
 Pingree, Charles Hazen  
 Pritchard, Paul Walburton  
 Ragsdale, William L.  
 Reaves, William Shelby  
 Reiner, Henry C.  
 Rose, Robert Koeberle  
 Russell, William A., Jr.  
 Salazar, Oscar E.  
 Schmitt, John L.  
 Scott, Donald Fiske  
 Seager, Charles E.  
 Sheehan, John Charles  
 Sheron, Herman Dewey, Jr.

Philadelphia, Pa.  
 Huntington, W. Va.  
 St. Petersburg, Fla.  
 Crab Orchard, W. Va.  
 Greenwich, Conn.  
 Philadelphia, Pa.  
 Dallas, Texas  
 Fairmont, N. C.  
 Pulaski, Va.  
 Washington, D. C.  
 New Brighton, Pa.  
 Baltimore, Md.  
 Hamden, Conn.  
 Pensacola, Fla.  
 Alexandria, Va.  
 Williamsburg, Va.  
 Durham, N. C.  
 Raleigh, N. C.  
 Scarsdale, N. Y.  
 New York, N. Y.  
 Prosperity, W. Va.  
 Chevy Chase, Md.  
 Bethlehem, Pa.  
 Wellesley Hills, Mass.  
 Durham, N. C.  
 St. Petersburg, Fla.  
 Island Heights, N. J.  
 Alexandria, Va.  
 Anderson, S. C.  
 Ridgefield Park, N. J.  
 Duluth, Minn.  
 Charleston, W. Va.  
 West Sand Lake, N. Y.  
 Oneonta, N. Y.  
 Jacksonville, Fla.  
 Charles Town, W. Va.  
 Richmond, Va.  
 Oil City, Pa.  
 Denver, Colo.  
 Greenville, N. C.  
 Belcross, N. C.  
 Richmond Hill, N. Y.  
 Durham, N. C.  
 Raleigh, N. C.  
 Richmond, Va.  
 East Orange, N. J.  
 Virginia Beach, Va.  
 Cleveland, Ohio  
 Kannapolis, N. C.  
 Wilmington, N. C.  
 New York, N. Y.  
 Charlotte, N. C.  
 Baltimore, Md.  
 Asheville, N. C.  
 Pensacola, Fla.  
 Englewood, N. J.  
 High Point, N. C.  
 St. Petersburg, Fla.  
 Asheville, N. C.  
 Johnstown, Pa.  
 Baldwinsville, N. Y.  
 Charlotte, N. C.  
 Mt. Holly, N. C.  
 Atlanta, Ga.  
 Caguas, Puerto Rico  
 Grand Rapids, Mich.  
 Durham, N. C.  
 Savannah, Ga.  
 Grosse Pointe, Mich.  
 Edgewood, Md.  
 Atlanta, Ga.  
 Ontonagon, Mich.  
 Clayton, Mo.  
 Washington, D. C.  
 Washington, D. C.  
 Caracas, Venezuela  
 Geneva, Ill.  
 Baltimore, Md.  
 Milton, W. Va.  
 Johnstown, Pa.  
 Charlotte, N. C.

Sherrerd, George, III  
 Shingleton, Roddy Neil  
 Slater, Charles E.  
 Snyder, John Gerald  
 Spencer, James Yancey  
 Stanton, Frank West  
 Stegner, Donald Lloyd  
 Stephenson, Edward V.  
 \*Stiegler, Theodore Donald  
 Stone, John Dawson  
 Street, Lockwood Dexter  
 Turner, Harold Edmond  
 Umstead, William Urban  
 Underhill, Walter Spooner  
 Van Blarcom, Peter Payne  
 Van Order, John A.  
 Wagner, David Lloyd  
 Weld, Louis Mackall  
 Whitaker, Donald Reeves  
 Wilson, Thomas N.  
 Woodbury, Gerard Everett  
 Young, David B.

Pinehurst, N. C.  
 Wilson, N. C.  
 Chelyan, W. Va.  
 South Charleston, W. Va.  
 Winston-Salem, N. C.  
 Tampa, Fla.  
 Baltimore, Md.  
 Mt. Lake Park, Md.  
 Towson, Md.  
 Durham, N. C.  
 Petersburg, Va.  
 Paramus, N. Y.  
 Durham, N. C.  
 Wuidsor, N. C.  
 Alexandria, Va.  
 Durham, N. C.  
 Cincinnati, Ohio  
 Meyersdale, Pa.  
 Hillsboro, N. C.  
 Havelock, N. C.  
 Norfolk, Va.  
 Hilton Village, Va.

### JUNIOR CLASS

(\* Transferred from Trinity College to College of Engineering;

† Transferred from College of Engineering to Trinity College)

Andou, Neil George  
 Avera, David Sander, Jr.  
 Bartlett, William M.  
 Baur, Raymond Hartman, Jr.  
 Behnke, Raymond George  
 Blackley, Shem K., Jr.  
 Block, Norman G.  
 Boling, Floyd Jackson, Jr.  
 Bourne, Philip Barry  
 Brown, Robert Marchant  
 Bryant, Kendred Luter, Jr.  
 Cain, Paul Ricks  
 Calleson, Donald A.  
 Calleson, Gerald Charles  
 Carver, John Raymond  
 Chamberlain, Wallace James  
 Chapman, Edwin Ernest, Jr.  
 Chesson, Leslie Foy  
 Chun, Robert Jenquen  
 Collins, Daniel Thomas  
 Cox, Jerry Vernon  
 Craig, John Bradford  
 Crauwell, James Logan, Jr.  
 Darling, Lee Winfield  
 Dawson, George H.  
 Day, Jerry Don  
 Decker, Marvin Clement  
 Dickenson, Charles Ellington, Jr.  
 Farmer, Frederick Chatman  
 Ferry, Roy John  
 Fitch, Lewis T.  
 Fowler, John Thomas, Jr.  
 France, Joe Hampton  
 Freemon, Joseph Mark  
 Gaidon, Frank Joseph  
 Gardner, Robert Eugene  
 Gerber, George Carl  
 Gove, Warren Herbert  
 Greene, Walter Eastburn  
 Hammerberg, Charles M.  
 Hardon, Clayton Thomas  
 Harmount, Thomas Herbert  
 Healey, Joseph Henry  
 Holder, Russell Grabs, Jr.  
 Holland, Roy Calvin  
 Horton, Raymond Earl  
 Hudson, Milton LeRoy  
 James, Gene L.  
 Kastenholz, Richard Jay  
 Kennedy, Frederick James  
 Kerby, Alfred E.  
 Kratt, Henry J.  
 Landon, William Curtis  
 Liatti, Lloyd Allen

Elmhurst, N. Y.  
 Winston-Salem, N. C.  
 Rockford, Ill.  
 Miami, Fla.  
 Morristown, N. J.  
 Shelby, N. C.  
 South Norwalk, Conn.  
 Siler City, N. C.  
 Lakewood, N. Y.  
 Glen Rock, N. J.  
 Durham, N. C.  
 Macon, Ga.  
 Merrick, N. Y.  
 Merrick, N. Y.  
 Hume, Mo.  
 Comstock Park, Mich.  
 Burlington, N. C.  
 Durham, N. C.  
 Oakland, Calif.  
 Jackson Heights, N. Y.  
 Homestead, Fla.  
 Mt. Lebanon, Pa.  
 New York, N. Y.  
 Cleveland Heights, Ohio  
 Philadelphia, Pa.  
 Charlotte, N. C.  
 Cedar Grove, N. J.  
 Roanoke, Va.  
 High Point, N. C.  
 Cambria Hts., L. I., N. Y.  
 Charleston, S. C.  
 Rutherfordton, N. C.  
 Palmyra, Va.  
 Burlington, N. C.  
 Merrick, N. Y.  
 Salisbury, N. C.  
 Arlington, Va.  
 Bergenfield, N. J.  
 Philadelphia, Pa.  
 McKeesport, Pa.  
 Longmeadow, Mass.  
 Cleveland, Ohio  
 Bloomfield, N. J.  
 Charlotte, N. C.  
 Raleigh, N. C.  
 Norfolk, Va.  
 Jacksonville, Fla.  
 Newark, N. J.  
 Bronx, N. Y.  
 Mulberry, Fla.  
 Hampton, Va.  
 Charlotte, N. C.  
 Durham, N. C.  
 Cleveland, Ohio

Little, Robert William  
 Lynch, Albert Vanstory  
 MacEwen, Wallace Scott  
 Mairs, Robert Louis  
 Marsden, George Wilmot  
 Mathies, Blair Henry  
 McMillan, Robert Carl  
 Meyer, Warren Edward  
 Miller, Guy Frederick  
 Miller, John Howard  
 Miller, Michael Boyd  
 Montgomery, John Wesley, Jr.  
 Murphy, Herbert James, Jr.  
 Murray, James Phillip  
 Nance, Earl W.  
 Palatine, Richard Louis  
 Perry, Thomas Edwin  
 Pierson, Kirvan Henry  
 Poe, Edgar Allen, III  
 Proglar, Thomas Hayes  
 Reed, Marshall Foster, Jr.  
 Riker, Rodney Moore, Jr.  
 Rinaldi, Roger Emerson  
 Riquezes, Jose Rafael  
 Roberts, John Edward  
 Sally, John L.  
 Schmidt, Roland Andrew  
 Shaw, Charles Powell, Jr.  
 Staufer, Ronald Bryan  
 Stephenson, Paul Dwight  
 Stout, Edward Booker  
 Tabor, Thomas Edwin  
 Taylor, Robert Worth  
 Vaughn, Stuart Hugh  
 Wilson, Ronald Leonard  
 \*Wingter, Ronald E.  
 Wise, Richard Tyson  
 Wood, Richard W.  
 Yelaca, Mike, Jr.  
 Yengst, William C.  
 Zollars, William Bell

Staunton, Va.  
 Baltimore, Md.  
 Charleston, W. Va.  
 Durham, N. C.  
 New Rochelle, N. Y.  
 Lindenhurst, L. I., N. Y.  
 Sikeston, Mo.  
 Rochester, N. Y.  
 Feura Bush, N. Y.  
 Youngstown, Ohio  
 Baltimore, Md.  
 Kinston, N. C.  
 Newark, Ohio  
 Rockville Centre, N. Y.  
 Richmond, Va.  
 Trenton, N. J.  
 Daytona Beach, Fla.  
 Baltimore, Md.  
 Fayetteville, N. C.  
 Clarksburg, W. Va.  
 Brandon, Vt.  
 Rockville Centre, N. Y.  
 North Bergen, N. J.  
 Venezuela, S. A.  
 Durham, N. C.  
 Durham, N. C.  
 Baltimore, Md.  
 Ridley Park, Pa.  
 Emmanas, Pa.  
 Wadesboro, N. C.  
 Greensboro, N. C.  
 Charleston, W. Va.  
 Jenkintown, Pa.  
 Detroit, Mich.  
 Baltimore, Md.  
 West Orange, N. J.  
 Bronxville, N. Y.  
 Durham, N. C.  
 Aliquippa, Pa.  
 Meadville, Pa.  
 Wallingford, Vt.

## SENIOR CLASS

Bixby, Richard Glenn  
 Blizard, J. Walter F., Jr.  
 Bolick, Harold D.  
 Bovaird, George C.  
 Brice, Charles Carroll  
 Broom, Phillip Ward  
 Brown, Bruce MacDonald  
 Clinemson, William Douglas  
 Connor, Lyle B.  
 Coppala, George Harrill  
 Daniel, Eugene Thomas  
 Eure, Thomas Duncan  
 Gross, Kenneth Eugene  
 Grove, Gordon, V.  
 Heckert, Richard John  
 Holbrook, James Edwin, Jr.  
 Houck, Frederic R.  
 Huffer, Nicholas Robinson  
 Hussey, George F., III  
 Jones, Charles Sherfy  
 Katzinski, Emil Fred  
 Kehlor, Gerard Evan  
 Kennedy, Joseph Everett, Jr.  
 Kennedy, K. Doyle  
 Kraeuter, Lincoln David  
 Lucas, Michael David  
 Lyon, Carlos Marshall  
 McGiehan, Donn  
 Mylrea, Bruce William  
 Nelson, Forrest Eugene  
 Pierry, Robert Francis  
 Powell, Ernest C., Jr.  
 Rumer, Ralph Raymond, Jr.  
 Russell, Luther Oscar, Jr.  
 Rutter, Donald Harris  
 Sarles, Frederick Williams, Jr.  
 Schafroth, Douglas Werner  
 Schieber, Richard M.

Detroit, Mich.  
 Jenkintown, Pa.  
 Burlington, N. C.  
 Bradford, Pa.  
 Annapolis, Md.  
 Monroe, N. C.  
 St. Petersburg, Fla.  
 Lancaster, Pa.  
 Bryantville, Mass.  
 Charlotte, N. C.  
 Durham, N. C.  
 Beaufort, N. C.  
 York, Pa.  
 Charlotte, N. C.  
 Youngstown, Ohio  
 Durham, N. C.  
 Carlisle, Pa.  
 Toledo, Ohio  
 Norwalk, Conn.  
 Washington, D. C.  
 W. Hempstead, N. Y.  
 Ashland, Pa.  
 Durham, N. C.  
 Durham, N. C.  
 West Orange, N. J.  
 Matthews, N. C.  
 Decatur, Ill.  
 Hartsdale, N. Y.  
 Chester, Pa.  
 Charlotte, N. C.  
 Teaneck, N. J.  
 Durham, N. C.  
 Bloomsburg, Pa.  
 Wilmington, N. C.  
 Baltimore, Md.  
 Greensboro, N. C.  
 Havertown, Pa.  
 Sarasota, Fla.

Scholley, George Gifford  
 Shipp, William Beasley  
 Shufelt, Charles Emery  
 Spelman, Stewart R.  
 Steele, James Gladstone  
 Stevingston, Wheldon F.  
 Stokes, William Alvis  
 Streeter, Richard N.  
 Suit, James Ray  
 Tarnow, Lawrence Millard  
 Tepe, Louis Charles  
 Tucker, Royster Milton  
 Waser, Charles Willard  
 Westervelt, Sheldon  
 Winkler, Hubert Erwin  
 Woodfield, Richard Thomas  
 Wright, William Vaughn

Hudson, Ohio  
 Durham, N. C.  
 High Point, N. C.  
 Rockville Centre, N. Y.  
 Chillicothe, Ohio  
 Kennewick, Wash.  
 Durham, N. C.  
 Belleville, N. J.  
 Durham, N. C.  
 Rochester, N. Y.  
 Ridgefield, N. J.  
 High Point, N. C.  
 Winston-Salem, N. C.  
 Oradell, N. J.  
 Lenoir, N. C.  
 Washington, D. C.  
 Wilson, N. C.

## *Woman's College*

### FRESHMAN CLASS

Affelder, Marilyn Taylor  
 Alexander, Ann Lyon  
 Alexander, Judith Morton  
 Altwater, Margaret Ann  
 Anderson, Sarah Carolyn  
 Apple, Etta Lou  
 Atkinson, Mary Jane  
 Auld, Patricia Dianne  
 Auman, Mary Sicehoff  
 Austin, Betsy Caroline  
 Austin, Mary Ann  
 Babcock, Mary Lou Graham  
 Backer, Gloria Rita  
 Bailey, Joyce Ware  
 Baker, Cynthia LaVerne  
 Bancker, Belitje Duyckinck  
 Barclift, Thelma Cole  
 Barger, Nancy Wayne  
 Barker, Mary Anne  
 Beal, Mary Lou  
 Beavers, Barbara Jean  
 Beeson, Nancy Ruth  
 Bell, Martha Jane  
 Black, Barbara Anne  
 Blackford, Lydia Helen  
 Blankenship, Mildred Carol  
 Boyd, Barbara  
 Brown, Betty Lynn  
 Brown, Martha Lee  
 Bruning, Elizabeth Starr  
 Brunson, Yoalder Kathleen  
 Bullivant, Beverly Marlene  
 Burke, Denise Carole  
 Burney, Lila Katherine  
 Byers, Elizabeth Alison  
 Cain, Elizabeth Jean  
 Caine, Helen Anne  
 Caine, Mary Anita  
 Carrico, Dorothy Lee  
 Chritton, Mary Louise  
 Clarke, Carol Jane  
 Clay, Florence Messick  
 Coble, Georganne Staley  
 Cochran, Constance Avery  
 Coffman, Ruth Ann  
 Conner, Sarah Lee  
 Cooke, Mary Harrison  
 Councill, Martha Hardin  
 Crandall, Virginia Lee  
 Cranston, Luanne Anita  
 Dampier, Minnie Helen  
 Daniel, Ann Reeder  
 Daniels, Joan Florence  
 Daughtry, Annie Mabel  
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 Davis, Betty Jane

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 Greensboro, N. C.  
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 Nashville, Tenn.  
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 Elmwood Park, Ill.  
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 Albemarle, N. C.  
 Ft. Lauderdale, Fla.  
 Clinton, N. C.  
 Milledgeville, Ga.  
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Davis, Elizabeth Hale  
 Davis, Janet Wilkison  
 Davis, Sylvia Annette  
 Deichmann, Gretchen Elizabeth  
 Denman, Mary Dudley  
 Dennis, Nancy Triplett  
 Dent, Lois Marilyn  
 Diggs, Nancy Patrice  
 Dinwoodey, Judith Austin  
 Dolwick, Gail Mary  
 Dort, Dorothy  
 Doss, Ellen Hope  
 Duell, Henningham Anne  
 DuMont, Maryann Barrett  
 Duncum, Betty Gene  
 Earle, Joan  
 Eller, Elizabeth Ann  
 Ellis, Betty Sue  
 Ellison, Anne Rankiu  
 Ellsworth, Harriet Lee  
 Eskridge, Jeanne  
 Evans, Beatrice Wilson  
 Eyster, Mary Elaine  
 Fisher, Hilda Virginia  
 Fleming, Jaue Aliue  
 Ford, Christine Shaw  
 Ford, Margaret Anne  
 Foster, Judith Ann  
 Freeman, Barbara Ann  
 French, Mary Roberta  
 Frye, Barbara Dabney  
 Gamble, Betsy Braddon  
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 Garrard, Patricia Ann  
 Garrett, Jacquelyn Rogers  
 Garrett, Portia  
 Gerlough, Diane Clare  
 Gilmore, Patricia Anne  
 Girand, Ann  
 Goldthwaite, Hathaway  
 Gould, Harriet Mackay  
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 Granholm, Fredlyne Alice  
 Granville, Orpah Mae  
 Gray, Sarah Virginia  
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 Hampton, Linda Carolyn  
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 Harrison, Shirley Ann  
 Hassell, Mary Martin  
 Hassler, Elaine Helen  
 Hatcher, Barbara Ann  
 Hiss, Valerie  
 Hoey, Mary Charlotte  
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 Hundley, Ann Meredith  
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 Jacobs, Marianne  
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 Johnson, Betty Rue  
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 Johnson, Myrtis Boone  
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 Sedan, Kan.  
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 Killian, Carole Page  
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 Lawrence, Dorothy  
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 Lightsey, Margaret Oswald  
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 Magee, Phyllis Ann  
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 Martin, Alice Ray  
 Mason, Nancy Glidden  
 Mayberry, Marilyn  
 McBride, Patricia Katherine  
 McCurdy, Elizabeth Ann  
 McGregor, Grace Lane  
 McKinster, Nancy Mayo  
 McLemore, Rosemary  
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 Morrow, Sallie Ann  
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 Ormond, Nancy Diane  
 Oshinsky, Phyllis Claire  
 Panossian, Nancy Lee  
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 Plummer, Lois Elizabeth  
 Pond, Cecilia Edmondson  
 Pope, Allison Scott  
 Pritchett, Emma Grier  
 Rape, Willie Catharine  
 Ray, Janet Patsy  
 Reese, Elsa Mary  
 Rhine, Rosemary  
 Ritter, Dallas Ann  
 Roberts, Norma Lillian  
 Rogers, Drucilla Carol  
 Rose, Eugenia Rennie  
 Ross, Katharine Lenoir  
 Royce, Linda Roma  
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 Sangston, Barbara Jean  
 Sasser, Bede Roberta  
 Saunders, Nancy Elizabeth  
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 Schostak, Muriel Shifra  
 Senerchia, Sallye Caroline  
 Shipe, Mary Sue  
 Shuey, Martha Lorraine

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 Glencoe, Ill.  
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 Tampa, Fla.  
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 Lake Wales, Fla.  
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 Chicago, Ill.  
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Simmons, Sally Ann  
 Simons, Louise Gale  
 Smith, Carol Mebane  
 Smith, Jo Anne  
 Sneed, Betty Jean  
 Southern, Mattie Odessa  
 Sowerby, Emily Jane  
 Stansbury, Patricia Ann  
 Stark, Mary Ann Holloway  
 Starr, Betsey Birdsey  
 Steinmetz, Lois Duncan  
 Stephenson, Alice Martin  
 Stewart, Laura Virginia  
 Stokes, Helen  
 Stone, Mary Emma  
 Strader, Susan Angel  
 Stratton, Virginia Harris  
 Stroud, Jane Turner  
 Sullivan, Margaret Sne  
 Swaringen, Doris Kay  
 Tegtmeyer, Erica Fay  
 Terry, Barbara Anne  
 Terry, Ellenor Reid  
 Thomason, Betty Jane  
 Thomasson, Sara Kathryn  
 Thompson, Margaret Jane  
 Tobias, Peggy Ann  
 Torgersen, Sara Jean  
 Traynham, Catherine Howard  
 Tronolone, Patricia Jeanne  
 Trosdal, Maria Carter  
 Troy, Louise Helen  
 Tyler, Alice Windle  
 Tyson, Lila Sue  
 Uhlrig, Lucille  
 Van Meter, Nancy Noble  
 Viall, Elizabeth Ann  
 Vossler, Barbara Ann  
 Wachsner, Gabrielle Anita  
 Wallace, Ellen  
 Walters, Martha Agnes  
 Walters, Sylvia Moonyeen  
 Ware, Joan Linton  
 Warlick, Cleo Inez  
 Warren, Janice Elaine  
 Warren, Lucy  
 Wasden, Eugenia Coleman  
 Watson, Cora Rebecca  
 Watts, Billie Jean  
 Weant, Joan Gwendolyn  
 Weathers, Rebecca Ann  
 Webber, Carolyn Tate  
 Weeks, Janet Louise  
 Werber, Patricia  
 Wheeler, Mary Nash  
 Whinrey, Sarah Lynn  
 Whitehurst, Barbara Anne  
 Whitted, Margaret Aline  
 Wible, Ann Smith  
 Williams, Mary Lynn  
 Williamson, Mary Lewis  
 Williamson, Vera McKnight  
 Winins, Mary Carolyn  
 Wood, Jewell  
 Woodall, Nell Brown  
 Wooten, Louise Trotter  
 Worth, Lenore  
 Zarins, Ingrida Karina

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 Greenville, N. C.  
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 Franklinton, N. C.  
 Bluefield, W. Va.  
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 Morehead City, N. C.  
 Columbus, Ga.  
 Auburn, N. Y.  
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 High Point, N. C.  
 High Point, N. C.  
 Sandersville, Ga.  
 Elon College, N. C.  
 Washington, D. C.  
 High Point, N. C.  
 Cranford, N. J.  
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 Barbourville, Ky.  
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 Wrightsville, Pa.  
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 Red Springs, N. C.  
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 Chattanooga, Tenn.  
 Hyattsville, Md.  
 Salisbury, N. C.  
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 Charlotte, N. C.  
 Arlington, Va.  
 Mt. Pleasant, Pa.  
 Roswell, N. Mex.  
 Norfolk, Va.  
 Augusta, Ga.  
 St. Louis, Mo.  
 Filbert, S. C.  
 Cincinnati, Ohio  
 Goldsboro, N. C.  
 Tampa, Fla.  
 New York, N. Y.

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Abrahams, Nina Eve  
 Adams, Virginia Jean  
 Alberts, Ethel Vivian  
 Alexander, Jean Bassett  
 Allen, Julia Alice  
 Alley, Grace Virginia  
 Almand, Helen Spratley  
 Anderson, Caroline Reeves  
 Anderson, Sally Porter  
 Aneshansel, Jane Louise

Lynchburg, Va.  
 Elkin, N. C.  
 Suffolk, Va.  
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 Smithfield, N. C.  
 Burlington, N. C.  
 Atlanta, Ga.  
 Savannah, Ga.  
 Ocala, Fla.  
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- Arnold, Mary Josephine  
 Asbury, Norlen Galle  
 Ballard, Clarita Lee  
 Barber, Margaret Foreman  
 Barger, Jane Claiborne  
 Barrows, Kimberly Alexandra  
 Beckman, Marjorie Anne  
 Benton, Mary Elizabeth  
 Berry, Deborah  
 Bevan, Joan Sandra  
 Bird, Marjorie Robinson  
 Blanton, Marion Elizabeth  
 Blomquist, Betty  
 Bolton, Glyn Saunders  
 Bowler Elizabeth Anne  
 Bowles, Mary Tresca  
 Boyle, Dial Gray  
 Bramham, Frances Ninnon  
 Brannon, Annette Laetitia  
 Brett, Joan Kempton  
 Brittain, Elizabeth Mary  
 Brooks, Susan Ruth  
 Broussard, Nancy Virginia  
 Brown, Joan Phebe  
 Brown, Joan Ruth  
 Brown, Lila Virginia  
 Brown, Mary Margaret  
 Brown, Patricia Ann  
 Brownlee, Jacquelyn Grace  
 Buesing, Muriel Jane  
 Bugg, Betty Blackwell  
 Burghard, Jacqueline  
 Burrell, Jo Ann  
 Burrus, Patricia Swan  
 Caruthers, Peggy Jane  
 Cashwell, Barbara Lee  
 Cass, Carroll  
 Cather, Carolyn Curtis  
 Chattin, Carol Ann  
 Ciuci, Mary Jane Theresa  
 Clark, Catherine Brodgen  
 Clarke, Judith Lambert  
 Clegg, Dorothy Louise  
 Clegg, Mary Ann  
 Clements, Edith Peppler  
 Cline, Virginia Smith  
 Cohan, Katherine Rockey  
 Conner, Elizabeth Darlene  
 Cooke, Walena Dean  
 Corbeels, Barbara Louise  
 Coslow, Jerry Scott  
 Couch, Carolyn O'Dell  
 Craigue, Janet Louise  
 Crain, Elizabeth Therese  
 Crippen, Barbara Ann  
 Criss, Gloria Janet  
 Crowe, Margaret MacFerran  
 Curlee, Martha Ann  
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 Dalton, Sally Gossett  
 Davis, Judith Anne  
 Day, Nancy Lee  
 Deuschle, Margaret Brown  
 Dinguid, Stephanie  
 Dock, Lois Jeanne  
 Duffy, Maryrae  
 Dula, Sara Josephine  
 Duncan, Margaret Calvert  
 Dundas, Deirdre Clare  
 Dunn, Mary Flourney  
 Dykes, Kathryn Lord  
 Eaton, Joanne Duff  
 Edwards, Cornelia Williams  
 Ehr Gott, Ann Burnet  
 Elder, Elizabeth Cooper  
 Erwin, Martha  
 Ferber, Ana Maria  
 Finch, Emily Cooper  
 Fincher, Joan Iris  
 Forbes, Wilhelmina Ann  
 Ford, Jacqueline M.  
 Richmond, Va.  
 East Yorkshire, England  
 St. Petersburg, Fla.  
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 Upper Montclair, N. J.  
 Webster Groves, Mo.  
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 Lakeland, Fla.  
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 Sanford, Fla.  
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 Brevard, N. C.  
 Durham, N. C.  
 St. Martinville, La.  
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 Marengo, Ill.  
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 Wooster, Ohio  
 Bethesda, Md.  
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 Winston-Salem, N. C.  
 Louisville, Ky.  
 Durham, N. C.  
 Mendenhall, Pa.  
 Durham, N. C.  
 Tenafly, N. J.  
 Manhasset, N. Y.  
 Wilmington, N. C.  
 Thomasville, N. C.  
 Washington, D. C.  
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 Pittsburgh, Pa.  
 S. Charleston, W. Va.  
 Winston-Salem, N. C.  
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 Durham, N. C.  
 Guatemala, Guatemala  
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 Camp Hill, Pa.  
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Fox, Joan Lillian  
 Foy, Sadie C.  
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 Furlow, Alma Craddock  
 Furlow, Mary Beverley  
 Gaskin, Dorothy Faye  
 Gaston, Joanne Scott  
 Getaz, Elizabeth Graham  
 Gingher, Alta Ann  
 Glass, Beverley  
 Glassmire, Sarah Suzanne  
 Greene, Jane Kathryn  
 Hall, Carole Peterson  
 Halton, Shirley  
 Hardy, Emily  
 Harrill, Julia Anne  
 Heater, Barbara Ann  
 Hedges, Helen Beth  
 Held, Shirley Anne  
 Hendrix, Nancy Little  
 Henrichsen, Elizabeth Anne  
 Henry, Erin Sandra  
 Hensler, Patricia Louise  
 Herring, Virginia Frank  
 Hickson, Lula Jane  
 Hildreth, Shirley Anne  
 Hill, Carolyn Earle  
 Hill, Joan Barbara  
 Hillman, Virginia Mae  
 Hoffman, Betty Lou  
 Hoke, Carol Ann  
 Holt, Helen Catherine  
 Holton, Ann Coffeen  
 Holzapfel, Helen Louise  
 Hoppe, Laura Margaret  
 Houser, Pantha Vashiti  
 Howe, Lucile Dickson  
 Humphrey, Valerie Peene  
 Impey, Cynthia  
 Irvine, Margaret Rutledge  
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 Jenkins, Sarah Warner  
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 Johnson, Lorraine Jeanette  
 Jones, Betty Bonner  
 Kale, Janie Dickson  
 Kee, Flora Joyce  
 Keels, Margaret Webb  
 Kelly, Mary George  
 Kernodle, Sara Rebecca  
 Kerr, Dana Kay  
 King, Joan Houston  
 Kneedler, Cornelia Harris  
 Kornegay, Martha Kelly  
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 Lassiter, Faith Himrod  
 Lauffer, Letty Lee Ward  
 Lee, Josephine Anne  
 LeFever, Judith  
 Lehman, Barbara Jeanne  
 Lorian, Helen Ann  
 LeStourgeon, Kathryn Fontaine  
 Long, Edith Black  
 Ludwick, Martha Louise  
 Lyon, Janice Nadine  
 Maben, Elizabeth Haynie  
 Macomber, Sally Anne  
 Mallard, Barbara Brown  
 Marion, Phyllis Elaine  
 Maus, Billie Ann  
 McCaleb, Dorothy Umstead  
 McCall, Ann Elizabeth  
 McClaran, Joyce  
 McClure, Dorothy Jane  
 McDougale, Anne Stevens  
 McGiehan, Gail Cable  
 McJimsey, Ann Graham  
 McPherson, Nancy Holt  
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 Meffert, Molly Lou  
 Meyer, Judith Eleanor

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 Coral Gables, Fla.  
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 Morgan, Mary Patricia  
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 Murdock, Judith Christine  
 Myers, Ann Adelle  
 Myers, Jeanne Kathryn  
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 Newcomb, Margaret Barkla  
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 Newlin, Eva Joan  
 Nicholson, Carole Rich  
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 Norton, Jean Ferguson  
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 Ohnes, Patricia Barbara  
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 Olney, LaVern  
 O'Neal, Margaret Jane  
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 Patrick, Doris Carolyn  
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 Perry, Jane Shipley  
 Plummer, Kathryn  
 Pope, Pauline Griffiu  
 Powell, Mary Ann  
 Purdy, Joan Frieda  
 Quillin, Helen Davis  
 Raiford, Hettie Louise  
 Raines, Frances Elizabeth  
 Ramseur, Mary Madison  
 Read, Sally Houstou  
 Redwine, Margaret Anne  
 Renick, Olive Jean  
 Rice, Rilla Marie  
 Ritch, Elizabeth Anne  
 Roberts, Betty Jean  
 Roberts, Jane Ellen  
 Roehm, Nancy Cornwell  
 Rowlain, Beverly Jean  
 Rutherford, Mary Jane  
 Sargent, Mary Horne  
 Saunders, Nancy Ellen  
 Schmitz-Mancy, Helga Louise  
 Schultz, Emily Faye  
 Seeley, Nancy Claire  
 Sherbano, Doris Mae  
 Shivell, Gayl Wolcott  
 Shuford, Patsy  
 Shuman, Mary Elisabeth  
 Smith, Georgia Merwin  
 Smith, Peggy Graham  
 Smith, Suzanne  
 Snow, Frances Cater  
 Stanley, Nelda Jeune  
 Stedman, Victoria Earle  
 Stewart, Anne English  
 Stewart, Mary Wardlaw  
 Stewart, Patricia Ann  
 Stott, Barbara Jean  
 Styron, Catherine Joyce  
 Summerrow, Norma Cynthia  
 Thacker, Alexandra Louise  
 Towns, Jane Anne  
 Truitt, Sarah Elizabeth  
 Tucker, Eleanor Brooke  
 Ueland, Tora  
 Uzzell, Carolyn Cannaday  
 Verbyla, Elaine Vivian  
 Waldrop, Mary Ann  
 Walker, Carol Kennedy  
 Wall, Ann Shugart  
 Watson, Phyllis Jackson  
 Webb, Elizabeth Arnold  
 Westcott, Ruth Elaine  
 White, Agnes Dean McLeod  
 White, Betty Sue  
 Whitted, D'Este

Chicago, Ill.  
 Summit, N. J.  
 Bailey, N. C.  
 Arlington, Va.  
 Baltimore, Md.  
 High Point, N. C.  
 Durham, N. C.  
 Durham, N. C.  
 Washington, D. C.  
 Cincinnati, Ohio  
 Fayetteville, N. C.  
 Huntington, W. Va.  
 Raleigh, N. C.  
 Guilford College, N. C.  
 Burlington, N. C.  
 Charlotte, N. C.  
 Raleigh, N. C.  
 Wedgefield, S. C.  
 Ridgewood, N. J.  
 Winnetka, Ill.  
 Dallas, Texas  
 St. Augustine, Fla.  
 Hickory, N. C.  
 Sanford, Fla.  
 Silver Spring, Md.  
 Columbus, Ohio  
 Philadelphia, Pa.  
 Dunn, N. C.  
 Raleigh, N. C.  
 Englewood, N. J.  
 Fayetteville, N. C.  
 Greensboro, N. C.  
 Havana, Cuba  
 Lincoln, N. C.  
 Atlanta, Ga.  
 Lexington, N. C.  
 Williamsburg, Va.  
 Ashland, Ky.  
 Charlotte, N. C.  
 Hiddenite, N. C.  
 Fayetteville, N. C.  
 Rockville Centre, N. Y.  
 Columbia, S. C.  
 Falls Church, Va.  
 Sewickley, Pa.  
 Boissevain, Va.  
 Nokesville, Va.  
 Baltimore, Md.  
 Candor, N. Y.  
 Highland Park, Ill.  
 Ridgewood, N. J.  
 Thomasville, N. C.  
 Darlington, S. C.  
 Greensboro, N. C.  
 Raleigh, N. C.  
 Decatur, Ga.  
 Macon, Ga.  
 Fayette, Ala.  
 Lumberton, N. C.  
 Arlington, Va.  
 Charlotte, N. C.  
 Hendersonville, N. C.  
 Greensboro, N. C.  
 Durham, N. C.  
 Gastonia, N. C.  
 Charlotte, N. C.  
 Atlanta, Ga.  
 Oxford, Ohio  
 Harbor Beach, Mich.  
 Red Bank, N. J.  
 Wilson, N. C.  
 Lenoir, N. C.  
 Greenville, N. C.  
 Ashland, Ky.  
 Walkertown, N. C.  
 Anderson, S. C.  
 La Grange, N. C.  
 Tenafly, N. J.  
 Jacksonville, Fla.  
 Concord, N. C.  
 Arlington, Va.

Williams, Grace Ellis  
 Williams, Laura Ann  
 Williamson, Mary Martin  
 Wilson, Anne Elizabeth  
 Wilson, Frances Mae  
 Winn, Jane McConnell  
 Withrow, Jo Anne  
 Woolley, Virginia Claire  
 Wright, Elizabeth Anne  
 Yost, Etha Rebecca  
 Zimtbau, Mary Mathilda

Durham, N. C.  
 Charlotte, N. C.  
 Charlotte, N. C.  
 New York, N. Y.  
 Norfolk, Va.  
 Washington, D. C.  
 Wilmette, Ill.  
 Coral Gables, Fla.  
 Wilson, N. C.  
 Salisbury, N. C.  
 Newton, N. C.

## JUNIOR CLASS

Allen, Ann  
 Allen, Betty Jean  
 Anderson, Martha Alice  
 Armbruster, Janet  
 Arthur, Shirley Elizabeth  
 Atkinson, Jane Cary  
 Avery, Virginia Johnston  
 Baldwin, Suzanne  
 Beane, Margery  
 Belland, Charlotte Ethel  
 Bemus, Jane Elizabeth  
 Benson, Mary Thornton  
 Bevan, Joyce Ann  
 Black, Elizabeth Gregg  
 Black, Marilyn Elizabeth  
 Blackard, Louise Cornelia  
 Blackwell, Lelia Alice  
 Blattner, Doris Ellen  
 Bonnesen, Janet Louise  
 Bonneville, Joanne Lorraine  
 Bowers, Charlotte Moore  
 Bowman, Dorothy Willard  
 Bradley, Jean  
 Bridgers, Mary Lou  
 Britt, Joy Wood  
 Brown, Joyce  
 Bryson, Mary Constance  
 Bullard, Sarah Clark  
 Burrous, Barbara Anne  
 Burton, Ann Mapes  
 Bush, Virginia Anne  
 Calkins, Elizabeth Dixon  
 Carter, Jane Aileen  
 Cathey, Grace Elizabeth  
 Caviness, Vera Dorman  
 Chappell, Betty Ruth  
 Clark, Janice  
 Clark, Joyce  
 Coe, Elaine Marie  
 Coffee, Mary Elizabeth  
 Coggins, Janet Jerome  
 Collins, Patricia Ryan  
 Copeland, Alice Ann  
 Covington, Anne Paschall  
 Cozart, Rachel Stedman  
 Cresap, Janice Bland  
 Critcher, Anne Edna  
 Crumbley, Jo Claire  
 Culbertson, Jacquelyn  
 Culbreth, Carolyn Elizabeth  
 Cumming, Jane Collier  
 Davis, Barbara Joan  
 DeLapp, Barbara Rose  
 Demorest, Sallie Jane  
 Derrick, Barbara Ann  
 Deutsch, Marietta Louise  
 Deyton, Ann Woody  
 Dienstl, Sharon Rae  
 Dominik, Joyce Mae  
 Downs, Constance Alden  
 Drake, Janet Marie  
 Drake, Marcia Randolph  
 Dudley, Dorothy Ann  
 Dundas, Rosemary  
 Dussault, Adrienne  
 Dutoit, Audrey Louise  
 Dutton, Ruth Clarke

River Forest, Ill.  
 Macon, Ga.  
 Cheraw, S. C.  
 N. Valley Stream, N. Y.  
 Kings Mountain, N. C.  
 Enfield, N. C.  
 Alexandria, Va.  
 Lynchburg, Va.  
 Greensboro, N. C.  
 Miami, Fla.  
 Waynesboro, Pa.  
 Sanford, N. C.  
 Ocean City, N. J.  
 DeLand, Fla.  
 Baltimore, Md.  
 Bristol, Tenn.  
 Ruffin, N. C.  
 Mt. Lakes, N. J.  
 Summit, N. J.  
 Chevy Chase, Md.  
 Bristol, Tenn.  
 Easton, Md.  
 Goldsboro, N. C.  
 Wilson, N. C.  
 Durham, N. C.  
 Hillsboro, N. C.  
 Durham, N. C.  
 Charlotte, N. C.  
 Genesee, Pa.  
 Detroit, Mich.  
 Charleston, W. Va.  
 Washington, D. C.  
 Morganton, N. C.  
 Dunn, N. C.  
 Lillington, N. C.  
 Hertford, N. C.  
 Durham, N. C.  
 Durham, N. C.  
 Langhorne, Pa.  
 Cranford, N. J.  
 Lenoir, N. C.  
 Thomasville, Ga.  
 Greensburg, Pa.  
 Sumter, S. C.  
 Fuquay Springs, N. C.  
 Miami Beach, Fla.  
 Durham, N. C.  
 Charlotte, N. C.  
 Vernon, Texas  
 Durham, N. C.  
 Griffin, Ga.  
 Flint, Mich.  
 Lexington, N. C.  
 Jacksonville, Fla.  
 Washington, D. C.  
 Durham, N. C.  
 Winston-Salem, N. C.  
 Tuckahoe, N. Y.  
 Park Ridge, Ill.  
 Lexington, Mass.  
 Newtonville, Mass.  
 Asheboro, N. C.  
 Lenoir, N. C.  
 Southern Pines, N. C.  
 Arlington, Va.  
 New York, N. Y.  
 Sparta, N. C.

- Eades, Abigail  
 Earle, Audrey  
 Edens, Catherine Ward  
 Flannery, Mary French  
 Fogle, Hazel LaRue  
 Foppert, Helen Bolling  
 Forbus, Martha Caroline  
 Ford, Constance Brigham  
 Fox, Nancy Jo  
 Godard, Mary Grace  
 Goldberg, Alma Norma  
 Goode, Elizabeth Ann  
 Gould, Barbara Lynn  
 Gray, Aurelia Elizabeth  
 Gray, Nancy Jean  
 Gregory, Dolores Alexandra  
 Gresham, Barbara Ann  
 Groves, Patricia Ruth  
 Hall, Anne Pauline  
 Hall, Shirley Jean  
 Hamilton, Julie Hereford  
 Harrell, Jacqueline Ruth  
 Harris, Barbara Anne  
 Hart, Elizabeth Hicks  
 Hart, Sarah Frances  
 Hassinger, Mary Jane  
 Hatcher, Rebecca Ann  
 Hawk, Margaret Anne  
 Hege, Cynthia Gail  
 Henson, Lillian Ann  
 Hibbler, Charlotte, Virginia  
 Hiester, Caroliue Moyer  
 Higgins, Deborah R.  
 Holloway, Margaret Frances  
 Holton, Aura Quinton  
 Hopkins, Marie de Bruyn Kops  
 Horton, Dottie Boyd  
 Huffines, Mary Ann  
 Hunt, Sara Dewey  
 Hurst, Mary Alice  
 Ireland, Barbara Anne  
 Jacobson, Arlene Myra  
 Johnson, Jean Ann  
 Johnson, Rebecca Ann  
 Johnson, Shirley Jane  
 Johnston, Aileen Morel  
 Jones, Marilyn  
 Jones, Nell Perkins  
 Jones, Sue Dolores  
 Kendall, Judith Hayward  
 Kennard, Anne Eloise  
 Kennedy, Margaret Huber  
 Kennedy, Tessie Colley  
 Kerbeck, Jane Rachel  
 Ketner, Alice Camille  
 Knece, Alice Viola  
 Kyle, Frances Elizabeth  
 Landon, Kathleen  
 Lane, Barbara  
 Larrinoa, Francine Theresa  
 Lawrence, Margaret P.  
 Lee, Mary Leonard  
 Lennon, Frances Knight  
 Levin, Paula Jane  
 Lewis, Mary Jane  
 Lovett, Ruth  
 MacLehose, Elizabeth Jean  
 Mallette, Ruth Baldwin  
 Maness, Sara Nell  
 Marlowe, Harriet Berry  
 Martin, Virginia Marie  
 Matheson, Philys Bryant  
 McBride, Frances Elizabeth  
 McCollum, Gloria Mae  
 McCrarrax, Nancy Marion  
 McDonald, Anne  
 McDowell, Betty Ann  
 McKeeman, Marilyn  
 McKelvie, Mary  
 Menges, Garnet Ann  
 Miller, Joanne  
 St. Louise, Mo.  
 Newport, R. I.  
 Rowland, N. C.  
 Coral Gables, Fla.  
 Walkersville, Md.  
 Philadelphia, Pa.  
 Durham, N. C.  
 Auburndale, Mass.  
 Albemarle, N. C.  
 Decatur, Ga.  
 New Orleans, La.  
 Cliffside, N. C.  
 St. Louis, Mo.  
 Winston-Salem, N. C.  
 Thomasville, N. C.  
 Pamlico, N. C.  
 Greensboro, N. C.  
 West Orange, N. J.  
 High Point, N. C.  
 Roanoke, Va.  
 New York, N. Y.  
 Houston, Texas  
 Winston-Salem, N. C.  
 Durham, N. C.  
 Jacksonville, Fla.  
 Bristol, Tenn.  
 Hamlet, N. C.  
 Cleveland, Ohio  
 Salisbury, N. C.  
 Atlanta, Ga.  
 Lookont Mt., Tenn.  
 Wyomissing, Pa.  
 Charlotte, N. C.  
 Durham, N. C.  
 Louisburg, N. C.  
 Charlotte, N. C.  
 Concord, N. C.  
 Reidsville, N. C.  
 Goldsboro, N. C.  
 Washington, D. C.  
 Hamptonville, N. C.  
 Sanford, Fla.  
 Atlanta, Ga.  
 High Point, N. C.  
 Dunn, N. C.  
 Asheville, N. C.  
 Caracas, Venezuela, S. A.  
 Charlotte, N. C.  
 Gastonia, N. C.  
 Middletown, Ohio  
 Arlington, Va.  
 Charlotte, N. C.  
 Durham, N. C.  
 Ridgewood, N. J.  
 Concord, N. C.  
 Chesterfield, S. C.  
 Colorado Springs, Colo.  
 Durham, N. C.  
 Georgetown, Del.  
 Havana, Cuba  
 Kinston, N. C.  
 Macon, Ga.  
 Fairmont, N. C.  
 Fishkill, N. Y.  
 Wilmington, N. C.  
 Dixon, Ill.  
 Snmmit, N. J.  
 Birmingham, Ala.  
 Greensboro, N. C.  
 Whiteville, N. C.  
 Pass-A-Grille, Fla.  
 Hickory, N. C.  
 Plainfield, N. J.  
 Fairmont, N. C.  
 Bristol, Tenn.  
 Raleigh, N. C.  
 Shelton, S. C.  
 Fort Wayne, Ind.  
 Kings Mountain, N. C.  
 West Palm Beach, Fla.  
 Coral Gables, Fla.

Miller, Josephine Arthur  
 Miller, Martha Jane  
 Mittleman, Judith  
 Moeller, Patricia Anne  
 Murphy, Nancy Lou  
 Murray, Marilyn Cissie  
 Muse, Elizabeth Chadwick  
 Neal, Constance Jane  
 Nease, Mabel Ruth  
 Nelson, Mollie Eda  
 Norris, Ann Rollins  
 Northington, Nancy Clark  
 O'Brien, Nancy Helen  
 Odom, Mildred Lytch  
 Oehlbeck, Avis Ann  
 O'Gara, Patricia Marie  
 O'Neil, Nancy Catherine  
 Osborne, Frances Ann  
 Orley, Mary Ella  
 Pachuta, Sylvia Ann  
 Page, Nina Elizabeth  
 Parker, Lelia C.  
 Pearce, Sarah Margaret  
 Peters, Avilda Carver  
 Peterson, Elizabeth Anne  
 Pierce, Rose Marie  
 Pillow, Virginia Queen  
 Power, Carrel Ann  
 Proctor, Nancy Jane  
 Pyles, Dorothy Anne  
 Randolph, Hilda Anthony  
 Ravenel, Katharine Parr  
 Redgrave, Catherine Jane  
 Reese, Sarah Anne  
 Revels, Norma Jeanne  
 Rigsbee, Ann Monroe  
 Ritch, Julia Ann  
 Roberts, Sue Beryl  
 Robinson, Mary Lee  
 Rodgers, Frances Louise  
 Ruffin, Jane Byrd  
 Russell, Barbara Stone  
 Rutland, Suzanne  
 Sale, Grace Wilson  
 Salkover, Joan Natalie  
 Scheller, Marie Anne  
 Schmitt, Evelyn  
 Schmoeller, Mary Raymonde  
 Schneidewind, Frances  
 Secrest, Dorothy Elizabeth  
 Seyffert, Mary Jane  
 Sharpe, Frankie L.  
 Sharpe, Suzanne  
 Skinner, Nancy Kathryn  
 Skovvaga, Margaret Ann  
 Sloan, Nancy Ann  
 Smedley, Carol Louise  
 Smith, Bonnie Joyce  
 Smith, Catherine Lorah  
 Smith, Elizabeth Anne  
 Smith, Jenell Ann  
 Smith, Mary Blair  
 Smith, Nancy Lee  
 Smith, Suzanne  
 Sommardahl, Patricia Lee  
 Stanback, Sally Ann  
 Stott, Mary Belle  
 Street, Maryellen  
 Tatum, Nancy Ann  
 Taylor, Jane E.  
 Thompson, Rebekah Jane  
 Todd, Clara Prudence  
 Triska, Margit  
 Trudeau, Jeanne Tisdale  
 Vallentyne, Jane  
 Vanderhoof, Diane Emilie  
 Wagoner, Iona Patricia  
 Wallace, Susan  
 Ware, Margaret Virginia  
 Washburn, Carolyn Bettis  
 Watkins, Linda Jane

Cleveland Heights, Ohio  
 Peoria, Ill.  
 Shaker Heights, Ohio  
 Charlotte, N. C.  
 Wilmette, Ill.  
 Durham, N. C.  
 Williamston, N. C.  
 Charlotte, N. C.  
 Charlotte, N. C.  
 Columbus, Ohio  
 Raleigh, N. C.  
 Charlotte, N. C.  
 Hamlet, N. C.  
 Gibson, N. C.  
 Morganton, N. C.  
 Augusta, Ga.  
 Winston-Salem, N. C.  
 Hayti, Mo.  
 Upper Montclair, N. J.  
 Mount Carmel, Pa.  
 Yanceyville, N. C.  
 Asheville, N. C.  
 Greensboro, N. C.  
 Bristol, Va.  
 Penns Grove, N. J.  
 Gastonia, N. C.  
 Eggertsville, N. Y.  
 Coral Gables, Fla.  
 Raleigh, N. C.  
 Washington, D. C.  
 Jacksonville, Fla.  
 Greensboro, N. C.  
 Atlanta, Ga.  
 Durham, N. C.  
 Cocoa, Fla.  
 Durham, N. C.  
 Charlotte, N. C.  
 Asheville, N. C.  
 Coral Gables, Fla.  
 Creve Coeur, Mo.  
 Durham, N. C.  
 Greenville, N. C.  
 Willoughby, Ohio  
 Charleston, W. Va.  
 Cincinnati, Ohio  
 Greenville, N. C.  
 Larchmont, N. Y.  
 Alton, Ill.  
 Upper Montclair, N. J.  
 Lillington, N. C.  
 Hampton, Va.  
 Elm City, N. C.  
 Ft. Lauderdale, Fla.  
 Zephyrhills, Fla.  
 Charleston, W. Va.  
 Wilmington, N. C.  
 Solon, Ohio  
 Durham, N. C.  
 Greenville, N. C.  
 Charleston, W. Va.  
 Jacksonville, Fla.  
 Greensboro, N. C.  
 Washington, N. C.  
 Savannah, Ga.  
 Roanoke, Va.  
 Miami, Fla.  
 Kittrell, N. C.  
 Woodbridge, Conn.  
 Atlanta, Ga.  
 Durham, N. C.  
 Chester, Va.  
 Fayetteville, N. C.  
 Manhasset, N. Y.  
 Kings Park, N. Y.  
 Oak Park, Ill.  
 Toccoa, Ga.  
 Elon College, N. C.  
 Wrightsville, Pa.  
 Atlanta, Ga.  
 Shelby, N. C.  
 Fairmont, W. Va.

Watkins, Margaret Louise  
 Weaver, Julia McCutcheon  
 Weedon, Betty Joyce  
 Westbrook, Carolyn  
 White-Spunner, Joan Irving  
 Whitmore, Mary Ellen  
 Willard, Helen Elleda  
 Williams, Shirley Ann  
 Willoughby, Laura Virginia  
 Wilmer, Florence Page  
 Wilson, Anne Sanders  
 Wilsou, Barbara Mallard  
 Wilson, Bette Jane  
 Wilson, Mary Rebecca  
 Wise, Constance Anne  
 Woods, Barbara Anne  
 Woodworth, Barbara Ann  
 Worsham, Mary Elizabeth  
 Worthington, Barbara Ann  
 Yancey, Margaret Hunter

Charlotte, N. C.  
 Durham, N. C.  
 Hollywood, Fla.  
 Dunn, N. C.  
 Pittsburgh, Pa.  
 Salem, Va.  
 Raleigh, N. C.  
 Bethesda, Md.  
 Jackson, Miss.  
 Chestertown, Md.  
 Monroe, N. C.  
 Rose Hill, N. C.  
 Bradenton, Fla.  
 Durham, N. C.  
 Winter Haven, Fla.  
 Arlington, N. J.  
 Erwin, N. C.  
 Ruffin, N. C.  
 Winterville, N. C.  
 Raleigh, N. C.

## SENIOR CLASS

Aldridge, Cornelia Boardman  
 Allen, Laura Lee  
 Alyea, Nancy Anderson  
 Atkinson, Bettie Helen  
 Ballantyne, Mary Lou  
 Barrows, Nancy Ward  
 Beck, Suzanne Joyce  
 Bellersen, Rita Catherine  
 Bishop, Margaret Jean  
 Bixby, Mary Louise  
 Blades, Barbara Ann  
 Blanks, Marguerite  
 Blight, Jane Ann  
 Bohn, Mary Lucille  
 Bolmeier, Barbara Joau  
 Boyle, Beverly Kay  
 Boysworth, Jeannine  
 Brigstocke, Joan Dunbar  
 Brinsou, Bettye Louise  
 Broaddus, Claire Tyler  
 Brokenshire, Janet Davis  
 Brooks, Elizabeth Ann  
 Broun, Caroline Gordon  
 Brown, Sarah May  
 Bruce, Betty Louise  
 Brunkow, Jane Frances  
 Bryan, Jean Lockitt  
 Bullard, Mary Ann  
 Burke, Catherine Regina  
 Cannell, Nancy Jean  
 Carr, Mitta G.  
 Carter, Katherine Ray  
 Cartwright, Margaret Elizabeth  
 Causey, Ann Elizabeth  
 Choate, Fay Mitchell  
 Clay, Jane Elaine  
 Clements, Peyton  
 Cohan, M. Patricia  
 Corzett, Joan  
 Crowell, Joan Lovelace  
 Crutcher, Frances Dinkins  
 Curlee, Geraldine Teresa  
 Dabney, Elizabeth Prewitt  
 Davis, Ann  
 Dawson, Mary Howland  
 DePass, Nancy Witherspoon  
 Divine, Elinor Faxon  
 Dohner, Patsy McCain  
 Dollens, Marjorie Lou  
 Dowdy, Patricia Ann  
 Downes, Mary Elizabeth  
 Drew, Dora Anne  
 Dunham, Dorothy Elizabeth  
 Dunn, Margaret G.  
 Eaton, Leslie Alice  
 Edwards, Hayme LaNelle  
 Efland, Margarie Ann  
 Elder, Mary Louise

Wayne, Pa.  
 Cincinnati, Ohio  
 Durham, N. C.  
 Macon, Ga.  
 New Brunswick, N. J.  
 Cincinnati, Ohio  
 Gahanna, Ohio  
 Cincinnati, Ohio  
 St. Petersburg, Fla.  
 Detroit, Mich.  
 Richmond, Va.  
 Jacksonville, Fla.  
 Huntington Woods, Mich.  
 Lenoir, N. C.  
 Durham, N. C.  
 Clayton, Mo.  
 Albemarle, N. C.  
 Dover, Pa.  
 Preutiss, Miss.  
 Richmond, Va.  
 Allentown, Pa.  
 New Rochelle, N. Y.  
 Roanoke Rapids, N. C.  
 Rutherford, N. J.  
 Palatka, Fla.  
 Pelham, N. Y.  
 Shaker Heights, Ohio  
 Charlotte, N. C.  
 Asheville, N. C.  
 Shaker Heights, Ohio  
 Oxford, N. C.  
 Maxton, N. C.  
 Ferndale, Mich.  
 Bethesda, Md.  
 Matthews, N. C.  
 Roselle Park, N. J.  
 Durham, N. C.  
 Wooster, Ohio  
 San Diego, Calif.  
 Enka, N. C.  
 Savaunah, Ga.  
 Charlotte, N. C.  
 Lexington, Ky.  
 Olean, N. Y.  
 Fayetteville, N. C.  
 Camden, S. C.  
 Kingsport, Tenn.  
 Asheboro, N. C.  
 Western Springs, Ill.  
 Durham, N. C.  
 Canton, Ohio  
 Webster Groves, Mo.  
 Warren, Pa.  
 New Bern, N. C.  
 Bronxville, N. Y.  
 Goldsboro, N. C.  
 Efland, N. C.  
 Albemarle, N. C.



Eley, Elizabeth Jump  
 Evans, Barbara Lee  
 Evans, Carol Austin  
 Evans, Diane Mae  
 Ferrell, Ann Gamble  
 Finter, Patty Preston  
 Fisher, Emily Margaret  
 Fisher, Margaret Alice  
 Flannery, Virginia S.  
 Galloway, Barbara Jeannette  
 Gatsch, Marie  
 Gilbert, Lois Waldrop  
 Glass, Nina Ruth  
 Gleason, Jane Lansing  
 Goldman, Sally Ann  
 Goldthwaite, Alice Helen  
 Gore, Dorcas Anne  
 Gotwals, Kathryn Lee  
 Graham, Alice Virginia  
 Groome, Augusta  
 Grover, Joan Louise  
 Gummels, Joan Martha  
 Gunderson, Ann Kathryn  
 Haim, Simmel Feinberg  
 Hardison, Mary Adele  
 Harris, Ann-Heath  
 Harter, Barbara Alice  
 Hayes, Joan Pringle  
 Heim, Clara Ann  
 Hennessey, Ellen  
 Hillman, Nancy Jane  
 Hinderer, Olga Irene  
 Hinson, Patsy Travis  
 Hobbs, Nancy McRae  
 Hoffman, Joyce Ann  
 Hoffmann, Carolyn Campbell  
 Holbeck, Anne Miller  
 Hollifield, Mary Alice  
 Holloway, Jo Anne  
 Holton, Mary-Marie  
 Hooker, Grace Lois  
 House, Marcia Carmichael  
 Hughes, Ruth Hundley  
 Hull, Judith Eileen  
 Hulse, Irene  
 Hurst, Nancy May  
 Jackson, Helen Louise  
 Jacobs, Mary Lou  
 Jahn, Jeryl May  
 Jarrell, Penelope Hampton  
 Jenkins, Dorothy  
 John, Louise R.  
 Jones, Virginia Ruth  
 Jordan, Margaret Stephens  
 Kale, Sarah Dean  
 Kauffman, Holiday Clay  
 Kimmel, Ruth Louise  
 King, Alice Campbell  
 Kirkman, Shirley Elizabeth  
 Knickerbocker, Fay Ann  
 Knott, Marsha  
 Koons, Jean Thorburn  
 Kosterlitz, Ruth  
 Lake, Eleanor Betty  
 Lauck, Virginia  
 Lea, Virginia Ramsay  
 Levenson, Bernice  
 Lipscomb, Nell Imogene  
 Longcrier, Mary Alice  
 Lucas, Peggy MacMillan  
 Mackie, Patricia Jean  
 Markee, Shirley June  
 Matheson, Alice Sutton  
 McCarter, Joan Adele  
 McCoy, Betty June  
 McGill, Lelia Autrey  
 McKelvey, Priscilla Kay  
 McKinney, Jane Fulton  
 McRae, Martha Kate  
 Melvin, Margaret  
 Menefee, Mary Ann  
 Queene Anne, Md.  
 Maplewood, N. J.  
 Jenkintown, Pa.  
 Savannah, Ga.  
 Durham, N. C.  
 Washington, D. C.  
 Raleigh, N. C.  
 Pleasant Ridge, Mich.  
 Coral Gables, Fla.  
 Greenwood, S. C.  
 Tomis River, N. J.  
 Greenville, N. C.  
 Knapolis, N. C.  
 Eau Gallie, Fla.  
 Burlington, N. C.  
 Indianapolis, Ind.  
 Raeford, N. C.  
 Philadelphia, Pa.  
 Enfield, N. C.  
 High Point, N. C.  
 Northampton, Mass.  
 Webster Groves, Mo.  
 East Orange, N. J.  
 Durham, N. C.  
 Wadesboro, N. C.  
 Denmark, S. C.  
 Washington, D. C.  
 Lake Worth, Fla.  
 Montoursville, Pa.  
 Weehawken, N. J.  
 Westport, Conn.  
 Waterville, Wash.  
 Charlotte, N. C.  
 Rocky Mount, N. C.  
 Sunbury, Pa.  
 Summersville, W. Va.  
 Clifton, N. J.  
 Brevard, N. C.  
 Smithfield, Va.  
 Louisburg, N. C.  
 Waycross, Ga.  
 Gloucester, Va.  
 Norfolk, Va.  
 Charlotte, N. C.  
 New York, N. Y.  
 Winchester, Va.  
 Jacksonville, Fla.  
 Danville, Ky.  
 Manhasset, N. Y.  
 Rock Hill, S. C.  
 Aulander, N. C.  
 Olean, N. Y.  
 Buffalo, N. Y.  
 Buenos Aires, Argentina, S.A.  
 Kannapolis, N. C.  
 Lancaster, Ky.  
 Milford, Del.  
 Biltmore, N. C.  
 High Point, N. C.  
 Gainesville, Ga.  
 Charlotte, N. C.  
 Newton, N. J.  
 Irvington, N. J.  
 Charlotte, N. C.  
 White Plains, N. Y.  
 Rocky Mount, N. C.  
 Salisbury, N. C.  
 Jacksonville Beach, Fla.  
 Saxapahaw, N. C.  
 Burgaw, N. C.  
 Hamilton, Ohio  
 Durham, N. C.  
 Raeford, N. C.  
 River Forest, Ill.  
 Alliance, Ohio  
 Chatham, N. J.  
 Greensburg, Pa.  
 Winston-Salem, N. C.  
 Montgomery, Ala.  
 Jacksonville, Fla.  
 Luray, Virginia

- Merritt, Marjorie Anne  
 Mertz, Phyllis Jane  
 Metcalf, Elizabeth F.  
 Michael, Doris Hall  
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 Watkins, Nancy Thomas  
 Weatherman, Lucile Leona  
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 West, Wis.  
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 Fitzgerald, Bernard Ray (A.B., Wofford College; University of Edinburg, 1949-50), Charlotte, N. C.  
 Fitzgerald, Frank Owen (A.B., High Point College), Kinston, N. C.  
 Fleming, Ralph Lang, Jr. (A.B., Duke University), Portsmouth, Va.  
 Forren, Robert Monroe (A.B., Morris Harvey College), Charleston, W. Va.  
 Foster, Robert Allen (A.B., The Johns Hopkins University), Memphis, Tenn.  
 Fowlkes, Ralph Eugene (A.B., Marshall College), Huntington, W. Va.  
 France, Carl Gailen (B.A., Bethany College), Crewe, Va.  
 Fritz, M. Jolee (B.A., State University of Iowa), Allentown, Pa.  
 Garren, Sumpter Reginald (A.B., Wofford College), Myrtle Beach, S. C.  
 Gibbs, James Samuel, Jr. (A.B., Wofford College), Stoneville, N. C.  
 Gibbs, Philip Hamilton (A.B., Wofford College), Dallas, N. C.  
 Gibson, Earl Kay (A.B., Wofford College), Charlotte, N. C.  
 Gibson, Robert Stansill (A.B., Duke University), Rockingham, N. C.  
 Glover, Murrell Kelso (B.A., Bridgewater College; B.D., Duke Divinity School), Burlington, N. C.  
 Glover, Robert Keith (A.B., Duke University), Bailey, N. C.  
 Goodrum, William Drayton (A.B., Davidson College), Cornelius, N. C.  
 Goodwin, Ernest Ray (B.S., Birmingham-Southern College), Chalkville, Ala.  
 Goodwin, James William (A.B., Birmingham-Southern College), Camp Cosby, Ala.  
 Gregory, Wyndham Nelson (B.A., Lynchburg College), Richmond, Va.  
 Grose, James Chalmus, Jr. (A.B., High Point College), Statesville, N. C.  
 Groves, David Clayton (A.B., Florida Southern College), Jacksonville, Fla.  
 Hackley, Edwin A. (A.B., Duke University), Charlotte, N. C.  
 Haire, Billie Allen (A.B., Wofford College), Spindale, N. C.  
 Haire, Earle Ross (A.B., Emory University), West Jefferson, N. C.  
 Hale, Holland Luther (B.S., East Tennessee State College), Vansant, Va.  
 Hall, James Thomas (A.B., Duke University), High Point, N. C.  
 Hansen, Ernest Paul (B.A., Morningside College), Jasper, Minn.  
 Harrell, Maurice (B.S., University of Houston), Houston, Texas.  
 Hawkins, William Thornton (A.B., Guilford College), Canton, N. C.  
 Heath, Thelma Roxana (A.B., Scarritt College), Benhill, Ga.  
 Hiatt, Emmett Ernest, Jr. (A.B., High Point College), High Point, N. C.  
 Hill, Fred Adam (A.B., Catawba College), Salisbury, N. C.  
 Hinrichs, Conley Kent (A.B., Nebraska Wesleyan University), Hildreth, Neb.  
 Hoagland, Richard Havis (B.S., Washington and Jefferson College), Little Valley, N. Y.  
 Horn, Kenneth Arthur (A.B., Wofford College), Upper Darby, Pa.  
 House, Thomas Holmes (A.B., Evansville College), Bailey, N. C.  
 Howard, Kenneth Weldon (B.A., Southern Methodist University), Waurika, Okla.  
 Howard, Michael Ross (A.B., Duke University), Concord, N. C.  
 Hudgins, Walter Edward (A.B., Duke University), Danville, Va.  
 Huggins, Ernest, Jr. (A.B., The Citadel), Johnsonville, S. C.  
 Hurst, Edwin William, Jr. (B.A., University of North Carolina), Rockingham, N. C.  
 Ingram, George Stephen (A.B., Duke University), Jacksonville, Fla.  
 Irvin, Henry Stuart (B.A., University of North Carolina), Aiken, S. C.  
 Jeffries, William Mac (B.S., University of Virginia), Washington, D. C.  
 Johnson, Charles E., Jr. (A.B., University of North Carolina), Raleigh, N. C.  
 Johnson, Jeremiah Frank (A.B., High Point College), Winston-Salem, N. C.

- Johnson, Kenneth Marshall (B.S., Davidson College), Charlotte, N. C.  
 Johnson, Walter Russell (A.B., Atlantic Christian College), Robersonville, N. C.  
 Kayler, Ralph Earl (A.B., Duke University), Gastonia, N. C.  
 Kelley, Pearlye Maye (A.B., M.A., Scarritt College), Newnan, Ga.  
 Kincaid, E. Lamar (B.A., Wake Forest College), Greensboro, N. C.  
 Kincaid, John J. Pershing (A.B., High Point College), Greensboro, N. C.  
 Kirby, Wallace Hines (B.S., University of North Carolina), Roxboro, N. C.  
 Knipmeyer, Arlie Charles (A.B., Duke University), Bellflower, Mo.  
 Knotts, Albert Ray, Jr. (B.S.E., Princeton University), Nottoway, Va.  
 Lackey, John Robert (A.B., Elon College), Elon College, N. C.  
 Lambert, Wilson Sharpe (B.A., Millsaps College), Jackson, Miss.  
 Langford, Thomas Anderson (A.B., Davidson College), Charlotte, N. C.  
 Lawson, Arvest N. (B.A., Hendrix College), Calico Rock, Ark.  
 Lawson, Marvest (B.A., Henderson State Teachers' College), Calico Rock, Ark.  
 Layfield, Pearce Hudson (D.D.S., Emory University School of Dentistry), La Grange, Ga.  
 Lazar, Julian Hampton (A.B., Wofford College), Florence, S. C.  
 Lee, Robert Edward (B.A., Randolph-Macon College), Richmond, Va.  
 Lemaster, Homer Lefew (B.A., Emory and Henry College), Martinsburg, W. Va.  
 Little, Gene Houston (A.B., Davidson College), Charlotte, N. C.  
 Lowdermilk, Max Kearns (A.B., Duke University), Asheboro, N. C.  
 Luessen, Ezra Assel (B.A., Ohio Wesleyan University), Cincinnati, Ohio.  
 Lytle, Albert Lealon (A.B., Wofford College), Marion, N. C.  
 McClure, Bruce Eugene (B.S., Indiana University), Indianapolis, Ind.  
 McLeod, Halcombe Guice (B.A., State Teachers College), Jackson, Ala.  
 McIntyre, Lucy Louise (B.A., Macalester College), Minneapolis, Minn.  
 McKenzie, George Robert, Jr. (A.B., High Point College), Wilmington, N. C.  
 McWhorter, John Lloyd (A.B., Duke University), Waxhaw, N. C.  
 Mah, Kyung Il (B.D., Korean Methodist Seminary), Pusan, Korea.  
 Maness, Charles McKinley, Jr. (B.A., University of North Carolina), Durham, N. C.  
 Marsh, Donald Frederick (A.B., Nebraska Wesleyan University; Garrett Biblical Institute, 1951), Archer, Neb.  
 Martin, James Granville (B.A., Southern Methodist University), Ft. Worth, Texas.  
 Mashburn, Dwight Winfred (A.B., High Point College), Highfalls, N. C.  
 Masters, Lurley Doyle (B.S., Tennessee Polytechnic Institute), Livingston, Tenn.  
 Matheson, James Leonard (A.B., Duke University), Mount Gilead, N. C.  
 Medlin, Boyce Conway (B.A., Wake Forest College), Durham, N. C.  
 Miller, Raymond Robert (A.B., Bethany College; M.A., Butler University; Ed.D., Indiana University), Durham, N. C.  
 Mitchell, Frank Joseph (B.S., Alabama Polytechnic Institute), Fairfield, Ala.  
 Montfort, Russell Thompson (B.A., Kentucky Wesleyan College), Crestwood, Ky.  
 Moore, Raymond Ledbetter II (A.B., West Virginia Wesleyan College), Fairmont, W. Va.  
 Mullins, Harold Stanley (A.B., Birmingham-Southern College), Chatom, Ala.  
 Nees, Forrest Glenn (B.A., Ohio Wesleyan University), Akron, Ohio.  
 Nelson, Earl Volney (B.A., Baker University), Fort Dodge, Iowa.  
 Ogle, George Ewing (B.A., Maryville College), Pitsa, Pa.  
 Owen, John Malloy, III (B.S., Davidson College), Fayetteville, N. C.  
 Owens, Charles Edward (B.S., Texas A. & M. College), Brookston, Texas.  
 Pate, Robert Bruce (A.B., Duke University), LaGrange, N. C.  
 Payne, Howard Talley (B.A., Millsaps College), Pelahatchie, Miss.  
 Pennigar, Charles Franklin (A.B., Catawba College), Franklinville, N. C.  
 Pfister, John William (B.A., Baker University), Kansas City, Mo.  
 Pledger, Bennie Edward (B.A., Wake Forest College), Wake Forest, N. C.  
 Plybon, George Frank, Jr. (A.B., Morris Harvey College), Marmet, W. Va.  
 Polley, Max Eugene (A.B., Albion College), Buchanan, Mich.  
 Pollock, Henry Morrison (A.B., Asbury College), Asheboro, N. C.  
 Porter, George Dewey, Jr. (B.S., Marshall College), Huntington, W. Va.  
 Ramsey, Vernon Jerome (A.B., Catawba College), Salisbury, N. C.  
 Randolph, Charles Wesley (A.B., Elon College), Elmwood, N. C.  
 Reagan, Ernest McDowell, Jr. (B.A., University of North Carolina), Weaverville, N. C.  
 Rich, William Alfred (A.B., Elon College), Graham, N. C.  
 Richardson, Charles Holt (B.A., Southern Methodist University), Lenapah, Okla.  
 Rickards, James Perry (A.B., East Carolina College), Washington, N. C.  
 Robertson, Richard Norris (A.B., Birmingham-Southern College), Talladega, Ala.  
 Rollins, Donald Edward (A.B., High Point College), Lexington, N. C.  
 Rush, James Wallace (B.A., Randolph-Macon College), McGeheysville, Va.  
 Schores, Daniel Mortimer, Jr. (A.B., Central College), Overland, Mo.  
 Schuler, Thomas Wilburn (A.B., Morris Harvey College), Charleston, W. Va.  
 Scroggs, Rohin Jerome (B.A., B.M., University of North Carolina), Raleigh, N. C.  
 Seawell, William Albright (A.B., Elon College), Snow Camp, N. C.  
 Self, L. Margaret (A.B., Duke University), Siler City, N. C.  
 Selstad, Robert Arney (B.S., University of Houston), Houston, Texas.  
 Sexton, Kenneth Bryan (B.S., North Carolina State College), Enfield, N. C.  
 Sharp, Raymond Joseph (B.A., Waynesburg College), Mays Landing, N. J.  
 Shelton, Wayne Gowan (A.B., High Point College), Mt. Airy, N. C.  
 Shepherd, Douglas Nelson (A.B., Duke University), Huntington, W. Va.  
 Sherman, William Welby, Jr. (Dickinson College), Baltimore, Md.  
 Shoaf, Early Clifford (A.B., High Point College), High Point, N. C.  
 Simpson, Robert Truesdale (A.B., Duke University), Rock Hill, S. C.  
 Smart, George McCollum (B.A., Randolph-Macon College), Franklin, Va.  
 Smith, Frank Ira (A.B., Syracuse University), Vernon, N. Y.  
 Smith, George Edwin (A.B., High Point College), Belmont, N. C.  
 Smith, Harmon Lee, Jr. (B.A., Millsaps College), Lexington, Miss.  
 Smith, Richard Clark (B.A., Vanderbilt University; M.A., Duke University), McKenzie, Tenn.

Smotherman, Ernest Hermon (B.S., Middle Tennessee State College), Chapel Hill, Tenn.  
 Spears, Jimmie Wray (A.B., Morris Harvey College), Glen Ferris, W. Va.  
 Stables, Alfred Gray (B.A., Randolph-Macon College), Port Republic, Va.  
 Stamey, Ben F. (A.B., Duke University), Lawndale, N. C.  
 Stanton, Herbert LeRoy (B.S., University of South Carolina; Candler School of Theology, 1950-51), Columbia, S. C.  
 Steele, Thomas Fant (A.B., Wofford College), Rock Hill, S. C.  
 Stockton, Thomas Barber (A.B., Davidson College), Winston-Salem, N. C.  
 Stradley, Walter McNutt (A.B., Duke University), War, W. Va.  
 Swink, Fletcher Wilson (B.A., Randolph-Macon College), Norfolk, Va.  
 Swofford, Thomas Hoyle, Jr. (A.B., Duke University), Greensboro, N. C.  
 Taylor, Eben (A.B., Wofford College), Charleston, S. C.  
 Thomas, Wilbur Edgar (B.A., University of Richmond), Richmond, Va.  
 Thompson, Richard David (B.A. and LL.B., University of Maryland), Lutherville, Md.  
 Turner, Sterling Deloy, Jr. (B.S., East Tennessee State College), Spring City, Tenn.  
 Tyson, Aaron Grandison (A.B., Guilford College), Farmville, N. C.  
 Tyson, George Hart (A.B., Duke University), Clinton, N. C.  
 Tyson, Joseph Blake (A.B., Duke University), Charlotte, N. C.  
 Tyson, Marvin Dewey (A.B., Atlantic Christian College), Hillsboro, N. C.  
 Tyson, Tommy (A.B., Duke University), Walstonburg, N. C.  
 Van Reenen, Albert Cecil, Jr. (A.B., West Virginia University), Bluefield, W. Va.  
 Waits, William Kenyon, Jr. (B.A., Huntington College), Montgomery, Ala.  
 Wallace, Carl Edison (A.B., Elon College), Greensboro, N. C.  
 Wallace, Robert (A.B., Berea College), Somerset, Ky.  
 Walter, William N. (B.A., Lycoming College), Union Springs, N. Y.  
 Walters, Whitford Frank (B.S. in M.E., Duke University), Greensboro, N. C.  
 Walton, Charles Reginald (B.A., Roanoke College), Roanoke, Va.  
 Wegwart, Wayne Gordon (B.S., Tri-State), Huntington, W. Va.  
 Welch, Donald James (A.B., Union College, Kentucky), Ashland, Ky.  
 White, James Graham, Jr. (A.B., High Point College), Charlotte, N. C.  
 Wier, Frank Edward (B.A., University of Tennessee), Knoxville, Tenn.  
 Wiggers, Charles Campbell (B.A., Millsaps College), Indianola, Miss.  
 Wike, Catherine Shirley (A.B., Duke University), New Bern, N. C.  
 Wilkerson, Albert Ernest, Jr. (A.B., Duke University), Durham, N. C.  
 Wilkinson, Raymond Lee (A.B., Wofford College), Butner, N. C.  
 Williams, Thomas McKendree, Jr. (A.B., Wofford College), Charleston, S. C.  
 Willis, Mason McLaurin (A.B., Wofford College), Fountain Inn, S. C.  
 Wilson, Harold Jackson (A.B., Wofford College), Falls Church, Va.  
 Wilson, William Earl, Jr. (B.A., Randolph-Macon College), Norfolk, Va.  
 Winecoff, George Hoyle (A.B., Erskine College), Concord, N. C.  
 Witherspoon, Loy Hahn (A.B., Duke University), Winston-Salem, N. C.  
 Wyand, Fred B., Jr. (A.B., Marshall College), Durham, N. C.  
 Yingling, Lewis Carroll, Jr. (A.B., The Johns Hopkins University), Woodlawn, Md.  
 Young, Hugh Claude, Jr. (A.B., Duke University), Charlotte, N. C.  
 Young, Joe Bryant (B.S., University of Houston), Houston, Texas.  
 Young, Russell Lowell, Jr. (A.B., Duke University), N. Wilkesboro, N. C.  
 Zunes, John Athas (B.S., Virginia Polytechnic Institute), Norfolk, Va.

## *Students Enrolled in the Department of Religion of the Graduate School of Arts and Sciences 1952-1953*

Allen, Ray Maxwell (B.A., Southwestern at Memphis; B.D., Duke Divinity School), Durham, N. C.  
 Carlton, John William (B.A., Baylor University; B.D., Duke Divinity School), Corpus Christi, Texas.  
 Carpenter, James A. (B.A., Wofford College; B.D., Duke Divinity School), Shelby, N. C.  
 Chamberlain, John Victor (A.B., Florida Southern College), Colwyn, Pa.  
 Chandler, John Wesley (B.A., Wake Forest College; B.D., Duke Divinity School), Wake Forest, N. C.  
 Cline, Pervy A. (B.A., Wake Forest College; B.D., Southern Baptist Theological Seminary), Gastonia, N. C.  
 Corpening, Julius H. (B.A., Wake Forest College; B.D., Southern Baptist Theological Seminary), Lancaster, S. C.  
 Daniels, Boyd Lee (A.B., College of Wooster; B.D., McCormick Theological Seminary), Sandusky, Ohio.  
 Davis, Sidney T. (A.B., West Virginia Wesleyan; S.T.B., Boston University School of Theology; M.Ed., University of Pittsburgh), Franklinton, N. C.  
 DeSanto, Pasquale (B.S., Temple University; B.D., Louisville Presbyterian Theological Seminary), Newton Square, Penn.  
 Dunn, Van Bogard (A.B., Murray State College; B.D., Duke Divinity School), Kirksey, Ky.  
 Edwards, George Riley (B.A., Southwestern at Memphis; B.D., Louisville Presbyterian Theological Seminary), Pittsboro, N. C.  
 Hamilton, Harold P. (A.B., High Point College; B.D., Duke Divinity School), Lexington, N. C.  
 Helubold, F. Wilbur (B.A., Howard College), Springville, Ala.  
 Henry, Stuart C. (B.A., Davidson College; B.D., Louisville Presbyterian Theological Seminary), Concord, N. C.  
 Highfill, W. Lawrence (A.B., Wake Forest College; B.D., Southern Baptist Theological Seminary), Winston-Salem, N. C.



Hosea, Addison (A.B., Atlantic Christian College; B.D., University of the South), Clinton, N. C.  
 Mallard, William, Jr. (A.B., Randolph-Macon College; B.D., Duke Divinity School), Durham, N. C.  
 Moudy, James M. (B.A., Texas Christian University; B.D., Brite College of the Bible, T.C.U.), College Station, Texas.  
 Pemberton, John (A.B., Princeton University; B.D., Duke Divinity School), Creedmoor, N. C.  
 Perkins, James C. (B.A., Princeton University; B.D., Oberlin School of Theology; Th.M., Oberlin School of Theology), San Antonio, Texas.  
 Richey, McMurry S. (A.B., Duke University; B.D., Duke Divinity School), Houston, Texas.  
 Score, John N. R. (A.B., Southwestern University; B.D., Garrett Biblical Institute), Dallas, Texas.  
 Spann, Edwin R. (B.A., Peabody College; B.D., Perkins School of Theology, S.M.U.), Nashville, Tenn.  
 Stewart, John W. (A.B., University of Georgia; B.D., Brite College of the Bible, T.C.U.), Carrollton, Texas.  
 Taylor, G. Aiken (A.B., Presbyterian College; B.D., Columbia Theological Seminary), Smyrna, Ga.  
 Taylor, Kenneth M. (B.A., Florida Southern College; B.D., Duke Divinity School), Miami, Fla.  
 Via, Dan O., Jr. (B.S., Davidson College; B.D., Southern Baptist Theological Seminary), Charlottesville, Va.  
 Wilcox, William George (B.A., Stanford University; M.A., Berkeley Baptist Divinity School; B.D., Union Theological Seminary, New York), Folsom, Calif.

## *School of Law* *First Year*

Barton, Gerald John (Duke University), Bronx, New York  
 Bell, William Goebel, Jr. (Duke University), Carrollton, Kentucky  
 Boyd, Melvin Thomas (Duke University), Henderson, North Carolina  
 Campbell, Forrest Edwin (University of Portland), Dunn, North Carolina  
 Carnahan, John Anderson (Duke University), Cleveland Heights, Ohio  
 Cates, Jerry H. (Duke University), Richmond, Virginia  
 Coleman, John William (Duke University), Arlington, Virginia  
 Cooper, Jack Rainier (Duke University), Riverside, New Jersey  
 Crawford, Narvel James, Jr. (Duke University), Asheville, North Carolina  
 Cummings, Alton Tunnell (Duke University), Asheboro, North Carolina  
 Deutsch, Murray (Northwestern University), Coral Gables, Florida  
 Dickos, Harry Frank (Geneva College), Beaver Falls, Pennsylvania  
 Franzblau, Sidney Myron (Muhlenberg College), Newark, New Jersey  
 Friedrich, John Peter (Colgate University), Fayetteville, New York  
 Goodwin, David Coburn (Harvard University), Miami Beach, Florida  
 Hager, Dudley Pierce (Duke University), Louisville, Kentucky  
 Hahn, Raymond Jenkin (Duke University), Pensacola, Florida  
 Halberstadter, Sanford Ira (Rutgers University), Elizabeth, New Jersey  
 Hart, Janet Olive (Swarthmore College), Durham, North Carolina  
 Herrero, Miguel Enrique (Duke University), Hato Ray, Puerto Rico  
 Kuffner, John Frederick (Ohio University), St. Marys, Ohio  
 Mitchell, Donald Walcutt (Duke University), Summit, New Jersey  
 O'Donnell, Jon Park (Duke University), Alexandria, Virginia  
 Reynolds, Joseph Charles (Duke University), Asheville, North Carolina  
 Sellars, Bayard Bellamy (University of California at L. A.), Los Angeles, California  
 Snyder, Theodore Allen (University of Chicago), Wallhalla, South Carolina  
 Steffey, Fred Henry (Duke University), Durham, North Carolina  
 Swanson, Edward Nathaniel (Duke University), Pilot Mountain, North Carolina  
 Walker, Clarence Wesley (Duke University), Durham, North Carolina  
 Warren, Harold Flack, Jr. (Duke University), Merchantville, New Jersey  
 Wilkins, Roland Robert (Albion College), Decatur, Georgia  
 Woolard, William Leon (Duke University), Pinetown, North Carolina

## *Second Year*

Baylog, Richard Louis (Kent State University), Cleveland, Ohio  
 Biddison, Mark (Duke University), New York, New York  
 Booker, Frank Edwin (Southeast Missouri State College), Cape Girardeau, Missouri  
 Brooks, Sidney Barclay (Duke University), Wilson, North Carolina  
 Calloway, Vern Daniel, Jr. (Duke University), Orlando, Florida  
 Clark, Seymour Garland, Jr. (Duke University), Brooklyn, New York  
 Curran, Marshall Glenn, Jr. (College of Wooster), New Castle, Pennsylvania  
 Davis, Robert Earl (Duke University), Portsmouth, Virginia  
 Gibson, Harold Eugene, Jr. (Duke University), Kenton, Ohio  
 Gordon, Abraham Isidore (University of Bridgeport), Bridgeport, Connecticut  
 Hardin, Paul, III (Duke University), Birmingham, Alabama  
 Harris, Charles Anthony (Duke University), Denmark, South Carolina

Hunter, Eugene Griggs, Jr. (Duke University), Kingsport, Tennessee  
 Johnston, Hugh Wolfe (Duke University), Cramerton, North Carolina  
 Kaehlin, William George (Duke University), East Rockaway, New York  
 Kelly, Walter Richard, Jr. (Duke University), Cherryville, North Carolina  
 Keziah, Sanford Perry, Jr. (Duke University), High Point, North Carolina  
 McFadden, Robert Lawrence (Duke University), Rock Hill, South Carolina  
 Mast, Everett Leo (Western Carolina Teachers College), Sugar Grove, North Carolina  
 Maxwell, John Wallace (Duke University), Bethesda, Maryland  
 Olive, Leon (University of Alabama), Durham, North Carolina  
 Rosenberg, Marvin (University of Richmond), Jamaica, New York  
 Rushing, Charles Evan (Augustana College), Moline, Illinois  
 Sarazen, John Carl (Duke University), White Plains, New York  
 Savitt, Herbert Saul (Duke University), Ansonia, Connecticut  
 Shull, Joseph Roger (Duke University), Bridgeport, Connecticut  
 Smith, Bill Lee (Juniata College), Fayette City, Pennsylvania  
 Street, John Scott, Jr. (Duke University), Chillicothe, Ohio  
 Stride, Richard Joseph (Duke University), Saco, Maine  
 Sulzer, Elizabeth Derr (Duke University), Lancaster, Pennsylvania  
 Swanstrom, John Eric (Clark University), Worcester, Massachusetts  
 Warreu, James Gates (Duke University), Washington, D. C.  
 Williams, Donald Eugene (Muskogum College), Ebon Valley, Pennsylvania  
 Wood, Charles Barnette (University of North Carolina), Roxboro, North Carolina  
 Woolard, Frazier Thomas (William and Mary), Washington, North Carolina  
 Young, James Frank (Duke University), Havertown, Pennsylvania

### *Third Year*

Biloon, Harold Levin (Harvard University), Norwich, Connecticut  
 Brooks, Val Carlton (Duke University), Wilson, North Carolina  
 Butler, Clifford Leroy (Northwestern Law School), Wilmette, Illinois  
 Chadwick, Harry Roberts, Jr. (Duke University), Smyrna, North Carolina  
 Chambers, Jack Horne (Duke University), Clothier, West Virginia  
 Corley, Donald George (Duke University), Jackson Michigan  
 Cromartie, Martin Luther, Jr. (Duke University), Tarboro, North Carolina  
 Dawson, John Burnette, Jr. (Duke University), Locust Valley, L. I., New York  
 Dickens, Wade Hampton, Jr. (Duke University), Scotland Neck, North Carolina  
 Elf, Robert Duane (University of North Carolina), Jamestown, New York  
 Galifianakis, Nick (Duke University), Durham, North Carolina  
 Gwyn, Julius Johnston (Duke University), Reidsville, North Carolina  
 Hagel, Harry (University of Connecticut), Cromwell, Connecticut  
 Hubbard, Robert Carl (Duke University), Lancaster, South Carolina  
 Hudspeth, George Lee (Texas Christian University), Yadkinville, North Carolina  
 Isley, Hugh Galloway, Jr. (Duke University), Raleigh, North Carolina  
 Kellam, Floyd Eaton, Jr. (Duke University), Princess Anne, Virginia  
 May, Cecil Dalton (Duke University), New Bern, North Carolina  
 Renfrow, Robert Perry (Duke University), Raleigh, North Carolina  
 Shaw, John Daniel, Jr. (Duke University), Sistersville, West Virginia  
 Shuford, William Albert (Duke University), Thomasville, North Carolina  
 Smith, Calvin Earl (Franklin and Marshall College), Hamburg, Pennsylvania  
 Smith, Lee Creedy (Duke University), Raleigh, North Carolina  
 Stipe, Robert Edwin (Duke University), Easton, Pennsylvania  
 Thompson, Richard Carroll (Lenoir-Rhyne College), Hickory, North Carolina  
 Wagner, William Dean (Colgate University), Trenton, New Jersey  
 Walker, James Warren (University of Scranton), Susquehanna, Pennsylvania  
 Weaver, Lucius Stacy, Jr. (Duke University), Durham, North Carolina  
 Webster, Richard Carlton (Duke University), Rochester, New York  
 Williamson, Edward Lorenza (Wake Forest College), Evergreen, North Carolina  
 Zimmerman, James Lawrence (Duke University), Durham, North Carolina

### *Graduate Students*

Cox, Robert Doyle (University of Oklahoma, U. of Oklahoma Law School), Wewoka, Oklahoma  
 Oshiro, Robert Chosei (University of Hawaii, Duke Law School), Oahu, Hawaii  
 Powers, Leonard Stewart (Duke University, University of North Carolina Law School), Youngsville, North Carolina

### *Unclassified Students*

Kotun, Albert Andrew (Duquesne University), Aliquippa, Pennsylvania  
 Little, James Crawford (Duke University, Duke Law School), Raleigh, North Carolina  
 Stevens, David Boyette (University of North Carolina, U. of North Carolina Law School), Durham, North Carolina  
 True, Joel Brundage, Jr. (Duke University), Springfield, Tennessee  
 Vickers, Claude Wallace (University of North Carolina), Durham, North Carolina



*German Students*

Fuchss, Gerhard Otto—Hanover, Germany  
 Grahn, Alfred Martin—Celle, Germany  
 Hamburger, Hans-Helmut Emil—Munchen, Germany  
 Jartwig, Bernd—Duisburg, Germany  
 Josephi, Wilhelm—Gottingen, Germany  
 Klug, Hans—Munchen, Germany  
 Lutz, Helmut Hermann—Stuttgart, Germany  
 Magens, Ernst Gerd—Hamburg, Germany  
 Mast, Heribert Joachim—Bochum, Germany  
 Reimer, Bernhard—Bremen, Germany  
 Tetzlaff, Heinz Ludwig—Kiel, Germany  
 Wersdoerfer, Heinz—Koln-Worringen, Germany  
 Wolff, Goetz Hermann Marcel—Tuebingen, Germany

*The School of Medicine*

## FIRST YEAR

Allison, Ronald Eugene (Duke University), Shaker Heights, Ohio.  
 Barton, Dewey Lockwood (Bates College), Hasbrouck Heights, N. J.  
 Benson, Gordon Donald (Drake University, University of Minnesota), Red Lake Falls, Minn.  
 \*Bootle, William Augustus, Jr. (Emory University, Mercer University), Macon, Ga.  
 Brown, Edward Brooking (Duke University), Scranton, Pa.  
 Bryan, William Blair (Wake Forest College), Battleboro, N. C.  
 Carmichael, Daniel Erskine (Vanderbilt University, Birmingham Southern), Birmingham, Ala.  
 Carswell, Abel Paul, Jr. (Duke University, University of North Carolina), Durham, N. C.  
 Coffin, Lewis Augustus, III (University of Virginia, New York University), New York, N. Y.  
 Cranford, Harold Davis (University of North Carolina), Asheboro, N. C.  
 Crenshaw, Marion Carlyle, Jr. (Davidson College), Columbia, S. C.  
 Culton, Julian Clark (Guilford College), Charlotte, N. C.  
 Culton, Yancey Goelet, Jr. (Guilford College), Charlotte, N. C.  
 Davis, William Alexander, Jr. (Davidson College, North Georgia College), Charlotte, N. C.  
 Deiss, Elmer Andrew, Jr. (Princeton University), Lexington, Ky.  
 Dickinson, William Andrew, Jr. (Virginia Military Institute), Cape Charles, Va.  
 Dorsey, Charles Laing (Virginia Military Institute), Roanoke, Va.  
 Dozier, Laurie Lester, Jr. (University of Miami, University of Florida, Duke University, Florida State University), Tallahassee, Fla.  
 Easterling, James Frank (University of North Carolina), Rocky Mount, N. C.  
 Failing, Robert Mayo (Western Carolina Teachers College, University of North Carolina), San Marino, Calif.  
 Foster, Richard Sparre (Duke University), Washington, D. C.  
 Fredericks, Richard Niel (Duke University), Miami Beach, Fla.  
 Gehweiler, John Andrew, Jr. (Duke University), Jamaica, N. Y.  
 Gibson, James Franklin (Duke University), Wilmington, N. C.  
 Griffin, Harvey Lee, Jr. (University of North Carolina), Asheboro, N. C.  
 Hardison, Joseph Hammond, Jr. (Sewanee Military Academy, Duke University), Raleigh, N. C.  
 Harley, Eugene Lincoln (Bates College), Cranston, R. I.  
 Hassler, William Lada (Duke University), Shaker Heights, Ohio.  
 Hollett, Alan Norton (Duke University), Wilmington, Del.  
 Howard, Robert Mackay (Duke University), Savannah, Ga.  
 Hutchin, Peter (Duke University), Cleveland, Ohio.  
 Jackson, James Robert (Wake Forest College), Fayetteville, N. C.  
 Jackson, Joseph Hoyt, Jr. (Centenary College, Louisiana State University, Duke University), Shreveport, La.  
 Johnson, Douglas Marion (Emory University), Durham, N. C.  
 Josefiak, Eugene Joseph (St. Joseph's College, University of Buffalo, Duke University), Durham, N. C.  
 Kent, Horace Smith (Duke University, Arizona State College), Mesa, Ariz.  
 Koger, Edward Richard (University of Florida), Hialeah, Fla.  
 Lang, Frank Alexander (Duke University), Fort Lauderdale, Fla.  
 Lee, Pope Matthews (Duke University), Asheville, N. C.  
 Mangum, Vernon Pressley (University of North Carolina), Hamlet, N. C.  
 Metropol, Harry Jack (Duke University), Manning, S. C.  
 Miller, David Edmond (Duke University), Laurinburg, N. C.  
 Mostellar, Henry Curtis (Duke University), Mobile, Ala.  
 Mundy, Elbert Johnson, Jr. (Duke University), Jacksonville, Fla.  
 Neal, John William (Wake Forest College, University of North Carolina), Monroe, N. C.  
 Newell, Bruce, Jr. (Duke University), Roxboro, N. C.  
 Pearson, Hugh Oliver, Jr. (Wake Forest College), Pinetops, N. C.  
 Pollock, James Harold (Duke University), Westerville, Ohio.  
 Preston, Edna Anne (Woman's College, University of North Carolina), Norfolk, Va.  
 Ratchford, George Rufus, Jr. (Duke University), Gastonia, N. C.  
 Rawlins, Lucy Vanghan (Wake Forest College, Wingate Jr. College, University of Southern California), Conway, N. C.  
 Rennart, Adhemar William (Duke University), Miami, Fla.

\* Withdrew 3 October 1952.

Rollins, Robert LeRoy, Jr. (University of North Carolina), Farmville, N. C.  
 Roseberry, Philip Leon (Duke University), York, Pa.  
 Ross, James Vincent, Jr. (Duke University), Easton, Pa.  
 Rutnoski, Peggy A. Johnson (Berea College, Wayne University, University of North Carolina), Burnsville, N. C.  
 Sanford, Virginia Oates (Woman's College, University of North Carolina, Wake Forest College), Greensboro, N. C.  
 Schachter, Jerome Miles (Duke University), Durham, N. C.  
 Shands, Joseph Walter, Jr. (Princeton University), Jacksonville, Fla.  
 Shealy, Clyde Norman (Duke University), Camden, S. C.  
 Shoemaker, Carroll Clifton (Wake Forest College), Raleigh, N. C.  
 Sloan, James Marshall, III (Davidson College), Gastonia, N. C.  
 Steele, Richard Austin (Wake Forest College, Duke University), Asheville, N. C.  
 Steiner, Sheldon Haskell (New York University), New York, New York.  
 Sterling, Lehman Newell (Duke University), Broomall, Pa.  
 Tanaka, Shin (Duke University), Durham, N. C.  
 Townsend, James Joye (Duke University), Jacksonville, Fla.  
 Turner, John Calhoun (Duke University), Fair Bluff, N. C.  
 Vance, Thomas Doyle (Duke University), Spruce Pine, N. C.  
 Walton, George Britain, Jr. (University of North Carolina), Chadbourne, N. C.  
 Whanger, Alan Duane (Duke University), Cleveland, Ohio.  
 Whitaker, Harry Applewhite (Davidson College), Rocky Mount, N. C.  
 White, Francis Arthur, Jr. (Harvard University), Mason City, Iowa.  
 Wilbanks, George Dewey, Jr. (University of Florida, Duke University), Tampa, Fla.  
 Wilkinson, Charles Albert (Wake Forest College), Wake Forest, N. C.  
 Wilson, Colon Hayes, Jr. (Duke University), Havelock, N. C.  
 Windom, Robert Emerson (Duke University), St. Petersburg, Fla.  
 Young, Hadley Rasch (The Citadel), Duluth, Minn.

## SECOND YEAR

Alexander, Gerald Laurence (University of Michigan, Cornell University), Brooklyn, N. Y.  
 Asbill, David St. Pierre, Jr. (The Citadel), Columbia, S. C.  
 Bell, Norman Howard (Emory University), Gainesville, Ga.  
 Bennett, Paul Clifford, Jr. (Wake Forest College), Kinston, N. C.  
 Bercovitz, Mary Caroline (Duke University), New York, N. Y.  
 Bethune, William Murphy, Jr. (Wake Forest College), Clinton, N. C.  
 Bjerk, Edward Martin (Elon College), Burlington, N. C.  
 Blum, Lawrence Michael (College of William and Mary), Brooklyn, N. Y.  
 Bourland, William Lee (Duke University), Winter Garden, Fla.  
 Bramlett, Charner Williams (The Citadel), Spartanburg, S. C.  
 Breibart, Sidney (College of Charleston), Charleston, S. C.  
 Britt, Benjamin Earl (N. C. State College), Raleigh, N. C.  
 Bynum, Rufus Sisson (University of North Carolina), Potsdam, N. Y.  
 Calvert, Beverly Carver (University of Wisconsin, George Washington University), Los Angeles, Calif.  
 Carver, David Harold (Harvard College), Chestnut Hill, Mass.  
 Chamberlain, Frank Harry (Duke University), West Orange, N. J.  
 Combs, Joseph John, Jr. (University of North Carolina), Raleigh, N. C.  
 Cowan, David Emerson (Davidson College), Burlington, N. C.  
 Cronland, Murphy Alan (Davidson College), Lincolnton, N. C.  
 Crowder, Thomas Harold, Jr. (University of North Carolina), Henderson, N. C.  
 Cupp, Horace B., Jr. (Emory University, East Tennessee State College, University of Tennessee), Mountain Home, Tenn.  
 David, Arthur Kalil, Jr. (University of Florida, Duke University), Jacksonville, Fla.  
 Deyton, Robert Guy, Jr. (Duke University), Brevard, N. C.  
 Dukes, Herbert Trice (Duke University), Tampa, Fla.  
 Farmer, John Lovelace, Jr. (Duke University), Wilson, N. C.  
 Fox, Norman Albright, Jr. (Guilford College), Durham, N. C.  
 Gore, John Pratt (Univ. of Richmond, Clemson College, Wake Forest College), Asheville, N. C.  
 Gore, Tom Winfield (Duke University), Haleyville, Ala.  
 Gores, John Ashley (Univ. of Calif. at L.A., Stanford University, Univ. of Southern Calif. at L.A.), San Diego, Calif.  
 Goswick, Claude Benjamin, Jr. (Duke University), Durham, N. C.  
 Graham, Frederick William, Jr. (Duke University), Charleston, W. Va.  
 Hajm, Liam (Duke University), Durham, N. C.  
 Hilgartner, Margaret Wehr (Bryn Mawr College, Duke University), Baltimore, Md.  
 Ira, Gorden Henry, Jr. (Duke University), Jacksonville, Fla.  
 James, Joseph McCraw, Jr. (University of North Carolina), Wilmington, N. C.  
 James, Robert Earl, Jr. (East Carolina Teachers College), Bethel, N. C.  
 Jelks, Allen Nathaniel (Emory University), Fort Lauderdale, Fla.  
 Johnson, Harry Wallace (Duke University), Weldon, N. C.  
 Johnston, Cyrus Conrad, Jr. (Duke University), Mooresville, N. C.  
 Jones, Edward Lenoir (High Point College, University of N. C.), Charlotte, N. C.  
 Kinneman, Robert Eugene, Jr. (Duke University), Greenfield, Ind.  
 Lang, William Steve, Jr. (Armstrong College, Duke University), Savannah, Ga.  
 Langley, John Thomas (University of North Carolina), Kinston, N. C.  
 Langstaff, Quintus Aden (Johns Hopkins University, Peabody College), Nashville, Tenn.  
 Lipton, Harold Pons (Duke University), Beechurst, L. I., N. Y.  
 McAuley, Eurid Reid, Jr. (University of North Carolina), Charlotte, N. C.  
 McCall, Ben Waring (Duke University), Jacksonville, Fla.  
 Merwarth, Charles Richard (Duke University), Cranford, N. J.  
 Mitchell, David Crerar (Duke University), Grosse Pointe, Mich.

Murphy, William Craighill (Vanderbilt University, N. C. State College,, University of North Carolina), Kenley, N. C.  
 Neal, Charles Bodine, III (Duke University), Millville, N. J.  
 Ocker, John McClellan, Jr. (Catholic University of America, Duke University), Durham, N. C.  
 Pagter, Amos Townsend, Jr. (Duke University, George Washington University), Washington, D. C.  
 Pierce, John Arthur (Duke University), Ocean Grove, N. J.  
 Reeves, John Wesley, Jr. (West Virginia University), Fairmont, W. Va.  
 Saunders, Donald Eugene, Jr. (University of South Carolina), Columbia, S. C.  
 Scherle, Edeline Marie Landstein (Mrs. W. C. Talley), (Instituto de Segunda ensenanza del Vedado, University of Havana), Habana, Cuba.  
 Silver, Donald (Duke University, Asheville-Biltmore Junior College), Asheville, N. C.  
 Simon, Harold (Duke University), Trenton, N. J.  
 Sledge, John Burton, Jr. (Duke University), Rich Square, N. C.  
 Slocumb, Marvin Benton (Mercer University, Duke University), Macon, Ga.  
 Smith, Richard Bowden (Duke University), Durham, N. C.  
 Snow, John Wesley (Duke University, University of Florida), Gainesville, Fla.  
 Spanel, David Louis (Princeton University, University of Pennsylvania), Princeton, N. J.  
 Steagall, Robert Worth, Jr. (Duke University), Charlotte, N. C.  
 Stokes, Thomas Angier, Jr. (University of North Carolina), Durham, N. C.  
 Strauss, Saul (Duke University), Brooklyn, N. Y.  
 Taylor, Everette Lester, Jr. (Washington & Jefferson College, Washington and Lee University, Duke University), Mount Airy, N. C.  
 Thames, Thomas Byron (University of Florida), Miami, Fla.  
 Watson, David Earl (Duke University), Okmulgee, Okla.  
 West, Bryan Clinton, Jr. (Wake Forest College, University of North Carolina), Kinston, N. C.  
 Wiggs, Eugene Overbey (Johns Hopkins University, University of Colorado, George Washington University), Washington, D. C.  
 Wiita, Robert Matthew (Duke University), Monessen, Pa.  
 Wilder, Buna Joe (Duke University), Daytona Beach, Fla.  
 Williams, Dana Steeves (Bates College), Reading, Mass.  
 Young, James Morningstar (Duke University), Massillon, Ohio.

## JUNIOR YEAR

Adamson, Jerry Eugene (West Virginia University), New Martinsville, W. Va.  
 Arthur, Robert Miller (George Washington University, University of North Carolina), Hillsboro, N. C.  
 Aycock, William Glenn (Duke University), Fremont, N. C.  
 Ayers, John Clifford, Jr. (Duke University), Nichols, S. C.  
 Barr, Frank Woodworth, Jr. (Davidson College), Charlotte, N. C.  
 Barrett, John Albert, Jr. (Duke University), Mt. Holly, N. C.  
 Bouzard, Walter Carroll (Lenoir-Rhyne College), Durham, N. C.  
 Brandy, Joseph Ralph, Jr. (University of Rochester), Ogdensburg, N. Y.  
 Brewer, John Mickle, Jr. (University of North Carolina), Kershaw, S. C.  
 Brock, Charles Lee (Duke University, Asheville-Biltmore College), Asheville, N. C.  
 Buckley, Charles Edward, III (Virginia Polytechnic Institute), Charleston, W. Va.  
 Carr, Henry James, Jr. (Elon College, Wake Forest College), Roseboro, N. C.  
 Clement, James Edwin (University of North Carolina), Raleigh, N. C.  
 Cohen, Harvey Jay (University of North Carolina), Columbia, S. C.  
 Constantine, Thomas Moore (Duke University), Racine, Wis.  
 Craddock, John Goodwin, Jr. (Belmont Abbey Junior College, Duke University), Charlotte, N. C.  
 Crevasse, Lamar Earle, Jr. (Duke University), Tampa, Fla.  
 Davis, Arnold Van Osdal (Duke University, University of Louisville), New Albany, Ind.  
 DeLaughter, George Dewey, Jr. (George Washington University, Duke University), Durham, N. C.  
 DePass, Skottowe Wannamaker (The Citadel, Duke University), Camden, S. C.  
 Elliott, James Francis (Lenoir-Rhyne College), Charlotte, N. C.  
 Finch, Charlie Bryan (Mars Hill College, Wake Forest College), Oxford, N. C.  
 Floyd, Marian Anita (Florida State University, Duke University), Winter Park, Fla.  
 Forrester, Eugene Norwood (University of Florida, University of North Carolina, Duke University), Dinsmore, Fla.  
 Gould, Kenneth George, Jr. (Duke University), Tampa, Fla.  
 Halberg, Gordon Harold (Concordia College, University of North Dakota), Crosby, N. D.  
 Hair, Thomas Eugene, Jr. (University of South Carolina), Columbia, S. C.  
 Harvey, Wallace Weston, Jr. (Wake Forest College), Greensboro, N. C.  
 Hedge, Raymond Harvey, Jr. (Citadel, Rice Institute), Tyler, Tex.  
 Helms, William Kendall, Jr. (Duke University), Columbia, S. C.  
 Hewitt, Wilmer Clyde, Jr. (College of Puget Sound, University of Washington), Tacoma, Wash.  
 Hill, Paul Edward (Western Carolina Teachers College, University of North Carolina), Murphy, N. C.  
 Holden, Alan Berle (Keystone Junior College, Columbia University, University of Michigan), Belle Harbor, N. Y.  
 Holland, Hal Curtis (Idaho State College, College of Idaho, University of Utah, Brigham Young University, Stanford University Graduate School), Idaho Falls, Idaho.  
 Horsley, Howard Theodore (Wake Forest College), Franklin, N. C.  
 Huber, Donald Simon (Duke University), High Point, N. C.  
 Hudmon, I. Stanton, Jr. (Duke University), Jacksonville, Fla.  
 Jackson, Benjamin Taylor (Duke University), Jacksonville, Fla.  
 James, Charles Alston (The Citadel), Columbia, S. C.

Javitt, Norman Bert (Columbia University, Syracuse University, University of North Carolina), Bronx, N. Y.  
 Jones, James David (Virginia Military Institute), Dallas, Tex.  
 Jones, William Burrell (Citadel), Ocala, Fla.  
 Kelley, James Marvin, Jr. (Southern Methodist University, Rice Institute), Dallas, Tex.  
 Kelly, Richard Alexander, Jr. (Wake Forest College), Matthews, N. C.  
 Kenaston, Thomas Corwin, Jr. (Duke University), Cocoa, Fla.  
 Losin, Sheldon (University of Maryland, New York University), Baltimore, Md.  
 Ludlow, Enoch Andrus (Brigham Young University), Spanish Fork, Utah.  
 Magee, George Franklin (University of Nevada, University of California), Reno, Nev.  
 Mattox, Huitt Everett, Jr. (Duke University, Concord College), Bluefield, W. Va.  
 McGerity, Joseph Loehr (Georgetown University, Columbia University, Duke University), West Palm Beach, Fla.  
 McGowan, Jack Landis (Tulane University, Emory University, University of North Carolina), Hamlet, N. C.  
 Mebane, Giles Yancey (Duke University), Raleigh, N. C.  
 Melton, Robert Allen (Duke University), Wilmington, N. C.  
 Morgan, Thomas Edward, Jr. (Duke University), Jacksonville, Fla.  
 Newnan, Ernest Gustave (Duke University), Pensacola, Fla.  
 O'Neill, James Flemister (Princeton University, Duke University), Savannah, Ga.  
 Past, Si Alexander, Jr. (University of Chattanooga, Duke University), Chattanooga, Tenn.  
 Patton, Robert Gray (Yale University, Duke University), Durham, N. C.  
 Pierson, George Herman, Jr. (Washington and Lee University), Charleston, W. Va.  
 Pinsker, Henry (William and Mary, New York University), Paterson, N. J.  
 Pollard, Louise Elaine Friend (Roanoke College), Accident, Md.  
 Potter, Clyde Randolph, Jr. (Wake Forest College), Belhaven, N. C.  
 Ramey, James William (University of Kentucky), Mt. Sterling, Ky.  
 Rippy, Girard Crawford, Jr. (Furman University, Duke University), Greenville, S. C.  
 Shapiro, Oscar William (Duke University), Newark, N. J.  
 Shugerman, Earle Hillel (Birmingham-Southern College, University of Alabama), Birmingham, Ala.  
 Silbergeld, Sam (University of Chicago, University of Illinois), Carlinville, Ill.  
 Sing, Robert Lloyd, Jr. (University of North Carolina, Queens College), Charlotte, N. C.  
 Skipworth, George Brook (University of Georgia, Duke University), Columbus, Ga.  
 Spach, Madison Stockton (Duke University), Winston-Salem, N. C.  
 Stallings, Tolbert Lacy, Jr. (University of Mississippi, North Georgia College, N. C. State College, University of Fribourg (Switzerland), Duke University), Louisburg, N. C.  
 Talley, William Clinton (Guilford College, University of North Carolina), Greensboro, N. C.  
 Tannehill, Antone Walter, Jr. (Vanderbilt University), Hattiesburg, Miss.  
 Thomas, Annabelle (University of North Carolina), Burlington, N. C.  
 Tickle, Dewey Reid (Duke University), Burlington, N. C.  
 Verner, John Victor, Jr. (University of Mississippi, North Georgia College, North Carolina State College, Duke University), Danville, Va.  
 Vetter, John Stanley (Wake Forest College), Mt. Olive, N. C.  
 Wanzer, Sidney Hovey (Duke University), Charlotte, N. C.  
 Williams, Kenneth Trotter (Duke University), Charlotte, N. C.  
 Yudell, Robert Ben (Duke University), New Bern, N. C.

## SENIOR YEAR

Adams, Reuben Homer, Jr. (University of Cincinnati, Southern Methodist University), Dallas, Texas.  
 Appen, Raymond Carl (Duke University), Somerset, Ky.  
 Ayerst, Robert Irvin (Yale University, Duke University), Connellsville, Pa.  
 Bacos, James Michael (Virginia Polytechnic Institute), Brooklyn, N. Y.  
 Baer, Bruce Lawrence (Duke University, Haverford College), Chapel Hill, N. C.  
 Bell, William Reed (University of Florida, University of the South), Pensacola, Fla.  
 Berlin, Melvin (Duke University), Savannah, Ga.  
 Berry, Joseph Norman (Clemson College), Charleston, S. C.  
 Blackard, Embree Hoss, Jr. (Duke University), Gastonia, N. C.  
 Bondurant, Stuart Osborne, Jr. (University of North Carolina), Winston-Salem, N. C.  
 Bonner, Octavius Blanchard, Jr. (University of North Carolina), High Point, N. C.  
 Borden, Richard Winstead (University of North Carolina), Goldsboro, N. C.  
 Boren, Richard Benjamin, III (University of North Carolina), Greensboro, N. C.  
 Brice, George Wilson, Jr. (Duke University), Charlotte, N. C.  
 Bridges, Ronzee McIntyre (Louisiana State University, Duke University), Shreveport, La.  
 Brockmann, John Lyndon (University of North Carolina), High Point, N. C.  
 Bryant, Gerald Nelson, Jr. (High Point College, University of North Carolina), Statesville, N. C.  
 Bullard, Lubin Fletcher, Jr. (University of North Carolina), Garland, N. C.  
 Butler, William Gilbert, Jr. (University of North Carolina), Laurinburg, N. C.  
 Caffey, John Williams, Jr. (Duke University), Greensboro, N. C.  
 Cain, Frank Coral, Jr. (Catawba College), Salisbury, N. C.  
 Carter, Needham Battle (Duke University), Rocky Mount, N. C.  
 Casto, Dorothy Louise (West Virginia University), Morgantown, W. Va.  
 Chick, Ernest Watson (Duke University), Durham, N. C.  
 Chittum, John Raymond (College of Wooster, Duke University), Wooster, Ohio.  
 Cobey, William Gray (University of Minnesota, University of the South), Louisburg, N. C.  
 Earley, Charles Marion, Jr. (Duke University), Norfolk, Va.  
 Edwards, Ian Keith (Duke University), Easley, S. C.  
 Evans, Eugene Michaux, Jr. (Duke University), Durham, N. C.  
 Evans, William Canfield, Jr. (Duke University), Gainesville, Fla.  
 Fishel, John Lewis (University of North Carolina), Winston-Salem, N. C.



Flanagan, John Francis (Virginia Polytechnic Institute), Blacksburg, Va.  
 Fogleman, Ross Lee, Jr. (Cornell University, Guilford College, Duke University), Greensboro, N. C.  
 Fowler, William Robert (University of North Carolina), Pilot Mountain, N. C.  
 Garlington, Laurens Nelson (Duke University), Birmingham, Ala.  
 Gibbs, Robert Walter (University of South Carolina), Columbia, S. C.  
 Gleason, William Lounsbury (Duke University), Daytona Beach, Fla.  
 Glenn, James Francis (University of Kentucky, University of Rochester), Lexington, Ky.  
 Hall, Kenneth Daland (Duke University), Durham, N. C.  
 Harper, Matt Cleveland, Jr. (Clemson A. & M. College, University of North Carolina), Marion, S. C.  
 Haworth, Sara Eldora (Mrs. J. E. Terrell), (Guilford College), High Point, N. C.  
 Hicks, Julius Norton (Duke University), Enterprise, Ala.  
 Hillman, Charles Harlan (Virginia Polytechnic Institute), Blacksburg, Va.  
 Keck, Charles, Jr. (Cornell University, Duke University), New York, N. Y.  
 Kent, Alfred Henry (Duke University), Winter Park, Fla.  
 Kernode, Donald Reid (Elon College), Elon College, N. C.  
 Lane, Harold Compton (Duke University, University of North Carolina), Rutherfordton, N. C.  
 Lyday, William Davie (Davidson College), Gastonia, N. C.  
 Mabe, Paul Alexander, Jr. (Wake Forest College), Morganton, N. C.  
 Mabry, Edward Bloxton (Duke University), Greensboro, N. C.  
 McArn, Hugh Monroe, Jr. (Davidson College), Laurinburg, N. C.  
 McCall, John B., Jr. (University of Virginia, Duke University), Jacksonville, Fla.  
 McNeely, Irwin Hollar (Duke University), Morganton, N. C.  
 Meiselman, Rude Karmus (Brown University), Charlotte, N. C.  
 Metcalf, Boyd Hendren (Duke University), Chevy Chase, Md.  
 Miller, Augustus Taylor, Jr. (University of North Carolina), College Park, Ga.  
 Niblock, Franklin Chalmers, Jr. (Oregon State College, Davidson College), Concord, N. C.  
 Overton, Dolphin Henry, Jr. (Virginia Military Institute), Shelby, N. C.  
 Parker, Mayon Vann (Duke University), Durham, N. C.  
 Parkerson, George Robert, Jr. (Duke University), Macon, Ga.  
 Pearson, John Kent (University of North Carolina), Apex, N. C.  
 Pierce, Ellison Cline, Jr. (University of Virginia), Gastonia, N. C.  
 Pollard, Lawrence Welford, Jr. (University of South Carolina), Columbia, S. C.  
 Rankin, Richard Brandon, Jr. (Wake Forest College), Concord, N. C.  
 Roof, Anne Carolyn (University of South Carolina), Columbia, S. C.  
 Rosemond, Robert Malone (Duke University), Charleston, S. C.  
 Sager, Samuel Ott (Duke University), Danville, Va.  
 Somers, James Earl (North Carolina State College, University of North Carolina), Burlington, N. C.  
 Stickel, Delford LeFev (Duke University), Martinsville, W. Va.  
 Tatom, Louis (Duke University), Ft. Monmouth, N. J.  
 Terrell, Thomas Eugene (Guilford College), Greensboro, N. C.  
 Urban, Adolph Joseph (University of North Carolina), Newark, N. J.  
 Vestal, Tom Alford (University of North Carolina), Rocky Mount, N. C.  
 Watt, Thomas Bunyan, Jr. (U. S. Naval Academy, Duke University), Hartsville, S. C.  
 Welch, George Harrison, Jr. (Duke University), Anderson, S. C.  
 Williams, Jean Babington, Jr. (Duke University), Hendersonville, N. C.  
 Williams, Jesse Lee, Jr. (Harvard University, University of Florida), Jacksonville, Fla.  
 Winslow, Francis Edward, Jr. (Harvard University, University of North Carolina), Rocky Mount, N. C.  
 Woodbury, Philip Stephen (Duke University), Pearisburg, Va.  
 Worsham, Julius Berry, Jr. (Duke University), Ruffin, N. C.  
 Young, Charles Gibson (Wake Forest College), Winston-Salem, N. C.

## *School of Nursing*

### FRESHMAN CLASS

Agner, Julia Jane	Vinton, Va.
Anderson, Alena Ann	Wilmington, N. C.
Arena, Mary Jo	Durham, N. C.
Baker, Betty Morrine	Fort Bragg, N. C.
Bennett, Barbara	Milwaukee, Wis.
Boyd, Betty Jo	Kingsport, Tenn.
Brewer, Mary Mattison	Charlotte, N. C.
Bullock, Doris Jean	Oxford, N. C.
Burton, Joy Ann	Otsego, W. Va.
Cannon, Shirley Louise	Falls Church, Va.
Clark, Shirley Rose	Greenville, N. C.
Dixon, Frances Joan	Henderson, N. C.
Endictor, Claire	Charleston, S. C.
Gayle, Barbree Ann	Camp McCov, Wis.
Grant, Sally Jane	Dayton, Ohio
Greear, Betsy Gene	Washington, D. C.
Hall, Gladys Ethel	High Point, N. C.
Handley, June Jane	Goldsboro, N. C.
Hicks, Marjorie Deane	Andrews, N. C.
Jackson, Margaret Ann	Elizabeth City, N. C.
Knight, Ann Keane	Washington, D. C.



Land, Margaret Joyce  
 Lanier, Peggy Ruth  
 Lassiter, Allie Lou  
 Lefebvre, Harriet  
 Lerda, Elizabeth Anne C.  
 MacNary, Marjorie Lee  
 McKay, Sherry Anne  
 Matthews, Barbara Dale  
 Maxwell, Nancy  
 Moore, Barbara Frances  
 Moore, Edith Ann  
 Nielson, Grace Maxwell  
 Parker, Evelyn Joyce  
 Parker, Secunda Clyde  
 Paschall, Emma  
 Ray, Phoebe Ann  
 Reynolds, Dorothy Jane  
 Riecks, Janet Oxelle  
 Simpson, Esther Natalie  
 Styer, Gloria Kay  
 Taylor, Charlotte Vance  
 Ullman, Joan  
 White, Ruthanna

Wilmington, N. C.  
 Spartanburg, S. C.  
 Randleman, N. C.  
 South Charleston, W. Va.  
 Cranford, N. J.  
 Garden City, N. Y.  
 Fayetteville, N. C.  
 Durham, N. C.  
 Tampa, Fla.  
 Hickory, N. C.  
 Murfreesboro, Tenn.  
 Edneyville, N. C.  
 Mill Spring, N. C.  
 Raleigh, N. C.  
 Hendersonville, N. C.  
 Taneytown, Md.  
 Rockingham, N. C.  
 Washington, D. C.  
 Allison Park, Pa.  
 Lakewood, N. J.  
 Raleigh, N. C.  
 Hickory, N. C.  
 Fayetteville, N. C.

### JUNIOR CLASS

Acton, Josephine Betty  
 Amburn, Mary Frances  
 Barnes, Norma Anne  
 Bates, Lorene Rosamond  
 Benton, Aldath Faye  
 Bessler, Mary Christine  
 Booker, Betty Jean  
 Bovard, Mary Elizabeth  
 Bruce, Dorothy Jean  
 Conant, Sylvia Lee  
 Duckworth, Nancy Lee  
 Earnhardt, Wanda Ann  
 House, Martha Lillian  
 Hux, Eula Elizabeth  
 Jordan, Iris Earle  
 Justice, Eugenia Crymes  
 Kelly, Elizabeth Ann  
 Kelly, Mary Ann  
 Koesy, Lucy Juliet  
 Lehman, Billie Catherine  
 Lyon, Mary Lou  
 McKelvey, Nancy Eleanore  
 Martin, Bettye Jean  
 Matthews, Jimmie Irene  
 Montgomery, Carol Ogle  
 Morrison, Laura Ann  
 Moseley, Jacquelin Ann  
 Pace, Ann Dearin  
 Reeves, Peggy Ann  
 Sheretz, Marguarita Park  
 Simmons, Ida Ruth  
 Staub, Dorothy Annette  
 Sullivan, Rosalie Patricia  
 Topping, Phyllis Purcell  
 Vaughan, Betty Jean  
 Wade, Julia Morgan  
 Watlington, Jane Marie  
 Withers, Rebecca Ann  
 Wright, Betty Wilkes

Birmingham, Ala.  
 Galax, Va.  
 Baltimore 9, Md.  
 Plant City, Fla.  
 Goldsboro, N. C.  
 Durham, N. C.  
 Salisbury, N. C.  
 Ormond Beach, Fla.  
 Overhills, N. C.  
 Durham, N. C.  
 Canton, N. C.  
 Spencer, N. C.  
 Decatur, Ga.  
 Weldon, N. C.  
 Conway, S. C.  
 Canton, N. C.  
 Raleigh, N. C.  
 Sumter, S. C.  
 Miami, Fla.  
 Fort Smith, Ark.  
 Madison, W. Va.  
 Derry, Pa.  
 Guilford College, N. C.  
 Raleigh, N. C.  
 Washington, D. C.  
 Statesville, N. C.  
 Ridgeland, S. C.  
 Oxford, N. C.  
 Whiteville, N. C.  
 Hyattsville, Md.  
 Savannah, Ga.  
 Westfield, N. J.  
 Rivesville, W. Va.  
 Roanoke, Va.  
 Montvale, Va.  
 Savannah, Ga.  
 Gretna, Va.  
 Spencer, N. C.  
 Chester, S. C.

### SENIOR CLASS

Berrier, N. Joyce Hampton  
 Blalock, Doris Jean  
 Boren, Jerre Denning  
 Bound, Margaret Sue  
 Britt, Mattie Heiman  
 Brunson, Norma Janet  
 Burgess, Betty Bahnson  
 Caperton, Betty Jean Richardson  
 Cobb, Frances Irene  
 Daniels, Edna Virginia  
 Davis, Elsie Germaine  
 Dees, Doris Jean  
 Edwards, Mary Ruth

Winston-Salem, N. C.  
 Burlington, N. C.  
 Benson, N. C.  
 West Palm Beach, Fla.  
 Fayetteville, N. C.  
 Sumter, S. C.  
 Winston-Salem, N. C.  
 Front Royal, Va.  
 Cherryville, N. C.  
 New Bern, N. C.  
 Carthage, N. C.  
 Pikesville, N. C.  
 Godwin, N. C.

Elmore, Anne Elizabeth  
 Ezzell, Lillian Shirley  
 Fletcher, Audrey Lange  
 Flora, Betty Jane  
 Foster, Virginia Lee  
 Fuller, Elizabeth Ann  
 Gatewood, Laura Maude  
 Gorman, Margaret Jones  
 Griffith, Jean Elizabeth  
 Haynes, Shirley Louise  
 Hooker, Rowena Ann  
 Johnson, Betty Sue  
 Johnston, Elizabeth Lyne  
 Kime, Mary Lois  
 Lamond, Mary Wilson  
 Larson, Betty Jane  
 Marchman, Llewellyn  
 McLellan, Mary Ann Facemire  
 Miller, Joan Frances  
 Mouillesseaux, Joyce  
 Pruitt, Mildred Margaret  
 Reynolds, Norma Hurley  
 Rogers, Gwendolyn Lou  
 Romano, Joanna Phyllis  
 Sarratt, Ann Elizabeth  
 Schellenberg, Shirley Ann  
 Smith, Eunice Mae  
 Swain, Barbara Ann Harper  
 Vashaw, Jeanne Marie  
 Watlington, Ida Mae  
 Williams, Bettie Josephine  
 Wright, Nancy Lee  
 Young, Phyllis Marie

Elkin, N. C.  
 Dunn, N. C.  
 Morristown, N. J.  
 Rockymount, Va.  
 Durham, N. C.  
 Cherryville, N. C.  
 Danville, Va.  
 Millington, Tenn.  
 Strasburg, Va.  
 Goldsboro, N. C.  
 West Palm Beach, Fla.  
 Westfield, N. J.  
 Durham, N. C.  
 Devon, Pa.  
 Alexandria, Va.  
 Tallahassee, Fla.  
 Savannah, Ga.  
 Fairmont, W. Va.  
 St. Petersburg, Fla.  
 Glen Rock, N. J.  
 Churchland, Va.  
 Princeton, W. Va.  
 Burlington, N. C.  
 Coral Gables, Fla.  
 Gaffney, S. C.  
 Lancaster, S. C.  
 New London, N. C.  
 Charlotte, N. C.  
 Chapel Hill, N. C.  
 Gretna, Va.  
 Oteen, N. C.  
 Fallston, N. C.  
 Bassett, Va.

## *The School of Forestry*

- \*Arnette, Talmadge Edison (B.S.F., University of Georgia); Brunswick, Ga.  
 \*\*\*Aulbach, John Joseph (B.S.F., University of Michigan; M.F., University of Michigan), Blacksburg, Va.  
 \*Ball, George Harold (B.S.F., University of Toronto), Toronto, Canada.  
 \*\*Bilan, Mykita Victor (University of Lemberg; Diploma in Forestry, University of Munich), Durham, N. C.  
 \*Buckner, Edward Reap (B.S., University of North Carolina), Chapel Hill, N. C.  
 \*\*\*Carvell, Kenneth Llewellyn (B.A., Harvard University; M.F., Yale University), North Andover, Mass.  
 \*\*Connolly, Francis Thomas (B.S., Rutgers University), Plainfield, N. J.  
 \*\*Crockett, Joseph McGavock (B.S., Virginia Polytechnic Institute), Wytheville, Va.  
 \*\*Davis, Francis Guy (B.S., Virginia Polytechnic Institute), Richmond, Va.  
 \*\*\*DeLong, Thomas Stover (B.S., Duke University; M.F., Duke University), Sinking Spring, Pa.  
 \*\*\*Goggans, James Floyd (B.S.F., University of Georgia; M.F., Duke University), Auburn, Ala.  
 \*\*\*Griffin, Ralph Hawkins (B.S., Virginia Polytechnic Institute; M.F., Yale University), Roanoke, Va.  
 \*\*Gross, Don Frederick (B.S., Roanoke College), Vinton, Va.  
 \*Hatchell, Glyndon Elbert (B.S.F., Louisiana State University), Denham Springs, La.  
 \*\*\*Hocker, Harold Willets, Jr. (B.S., Pennsylvania State College; M.F., North Carolina State College), Harrisburg, Pa.  
 \*\*McMahon, William Joseph, Jr. (B.S., Virginia Polytechnic Institute), Newport News, Va.  
 \*Markley, Jack Hutcheson (B.S., Virginia Polytechnic Institute), Staunton, Va.  
 \*\*\*Stecher, Donald Adolph (B.S., University of New Hampshire; M.F., North Carolina State College), Centre Harbor, N. H.  
 \*\*Stillwell, Harold Daniel (B.S., Duke University), Durham, N. C.  
 \*\*\*Sullivan, Edward Thomas (B.S.F., North Carolina State College; M.F., Duke University), Manhasset, L. I., N. Y.  
 \*\*Turner, Ralph Gray (B.S., University of Richmond), Richmond, Va.  
 \*\*Zimmerman, James Dillard (A.B., Lynchburg College), Boydton, Va.

## *Students in Summer Session Only, 1952*

Bethlahmy, Nedavia (B.S., Pennsylvania State College; M.F., Yale University), Bethlehem, Pa.  
 \*Bonnallie, Chester Alexander, Jr. (B.S., University of Massachusetts), Fitchburg, Mass.  
 Gash, William D. (B.S., North Carolina State College), Burgaw, N. C.

- \*Registered for Master of Forestry Degree, 1953.  
 \*\*Registered for Master of Forestry Degree, 1954.  
 \*\*\*Registered for Doctor of Forestry Degree.

\*\*\*Herndon, Thomas Glenn (B.S.F., University of Florida; M.S.F., University of Florida), Gainesville, Fla.  
 Miller, Ralph R. (B.S., Iowa State College), Bogalousa, La.  
 Osborn, Robert M. (B.S., Pennsylvania State College), Franklin, Va.  
 Robertson, F. Herbert (B.S.F., University of Georgia), Panama City, Fla.  
 \*\*\*Smith, David V. (B.S.F., University of Georgia; M.F., Duke University), Lumpkin, Ga.  
 Trimble, George R. (B.S., University of Maine), Parsons, West Va.  
 Troxell, Harry Emerson, Jr. (B.S., Duke University; M.F., Duke University), Fort Collins, Colo.

### *Special Student*

Nour, Hussein (B.S., Fouad First University), Cairo, Egypt.

## *Students of Forestry in the Graduate School of Arts and Sciences*

Carmean, Willard Handy (B.S., Pennsylvania State College; M.F., Duke University), Norristown, Pa.  
 McClurkin, Douglas Charles (B.S.F., University of Georgia; M.F., Duke University), Jacksonville, Fla.  
 Zahner, Robert (B.S., Duke University; M.F., Duke University), Durham, N. C.

## *Academic-Forestry Senior in the School of Forestry*

Martin, Charles Edward, Oxford, Pa.

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Music and Art .....	5
Residence .....	9
Student Health .....	3
Food Services .....	7
STAFF OF UNIVERSITY LIBRARIES .....	63
Total .....	838‡

\* Does not include visiting members of the Summer Session Faculty. Nor does it include 21 officers with academic rank who are listed with the Officers of Administration.

† Does not include 21 officers with academic rank who are listed with the Officers of Instruction.

‡ Does not include duplications. An officer is included in the first category in which his name appears.

*Students*

## ENROLLMENT ON THE SEMESTER BASIS

<i>School or College</i>	<i>Fall Semester</i>	<i>Spring Semester</i>
COLLEGE OF ENGINEERING		
Regular Students .....	253	245
Special Students .....		
Total .....	253	245
TRINITY COLLEGE		
Regular Students .....	1,963	1,833
Special Students .....	18	18
Total .....	1,981	1,851
WOMAN'S COLLEGE		
Regular Students .....	1,031	1,000
Special Students .....	57	57
Total .....	1,088	1,057
DIVINITY SCHOOL		
Regular Students .....	213	206
Special Students .....	3	4
Total .....	216	210
GRADUATE SCHOOL OF ARTS AND SCIENCES		
Regular Students .....	329	328
Special Students .....	56	48
Total .....	385	376
SCHOOL OF FORESTRY		
Regular Students .....	22	19
Special Students .....	1	3
Total .....	23	22
SCHOOL OF LAW		
Regular Students .....	114	108
Special Students .....	3	2
Total .....	117	110
SCHOOL OF NURSING		
Regular Students .....	127	126
Special Students .....		
Total .....	127	126
<u>TOTAL ENROLLED ON SEMESTER BASIS</u>		
Regular Students .....	4,052	3,865
Special Students .....	138	132
Total .....	4,190	3,997



## ENROLLMENT ON THE QUARTER BASIS—1952-53

Medical School	Summer Quarter 1952	Fall Quarter 1952	Winter Quarter 1953	Spring Quarter 1953
Regular Students .....	66	308	284	263
*Fellows .....	53	53	53	53
*Interns .....	46	46	46	46
*Assistant Residents .....	74	74	74	74
*Residents .....	23	23	23	23
<u>TOTAL ENROLLED ON</u>				
<u>QUARTER BASIS</u> .....	262	504	480	459

## MISCELLANEOUS TERMS

Course	Number of Students	Length of Term	Beginning of Term
Anesthesiology .....	7	12 & 18 months	Registration Jan. & July
Dietetics .....	12	12 months	Registration September
Hospital Administration .....	8	24 months	Appointments Jan. & July
Medical Technology .....	27	21 months	Registration September
Physical Therapy .....	26	15 months	Registration October
Record Library .....	5	12 months	Registration October
X-Ray Technology .....	6	12 months	Appointments March & Oct.

SUMMARY: FALL AND SPRING ENROLLMENT—1952-53

Fall Enrollment .....	4,785
Spring Enrollment .....	4,547

## SUMMER ENROLLMENT

	Term I	Term II	July
Regular Students .....	1,000	680	
Mycology .....			20

\* Appointments are for a twelve-month (July 1-June 30) period and are so treated.



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